

AN IMPORTANT NEW BOOK  
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# **DROP YOUR BLOOD PRESSURE**

Symptoms, causes, remedies for the illness  
that afflicts over 23 million Americans!

**Lloyd Rosenvold, M.D.**



*Sixty to sixty-five percent of America's population has high blood pressure—and doesn't know it.*

*People with only slightly elevated pressure are four times more likely to have heart attacks than others.*

Here, in explicit and lucid language, is a sound, practical program for those who have hypertension, those who think they might have it—and how to find out.

From causes and symptoms to diet and exercise, **DROP YOUR BLOOD PRESSURE** is full of the facts everyone needs to know about high blood pressure—facts that can help dispel the growing fear of one of America's leading silent killers!



**DROP  
YOUR  
BLOOD  
PRESSURE**

**LLOYD ROSENVOLD, M.D.**

**PYRAMID BOOKS**



**NEW YORK**

**DROP YOUR BLOOD PRESSURE**

**A PYRAMID BOOK**

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## INTRODUCTION

### ***Tracking Down the Sphinx***

A RECENT MEDICAL JOURNAL ARTICLE LIKENED the inscrutable face of high blood pressure in humans to a sphinx.<sup>1</sup> This "sphinx" is the focus of a quest by thousands of researchers, who are trying to track down the cause of essential hypertension, which in epidemic proportions is afflicting millions of Americans.

Authorities estimate variously that from 10 to 26 percent of Americans suffer from high blood pressure —from 23 to 70 million persons. No one really knows how many there are, for the low figure of 23 million is based on the most limited ideas of how high the blood pressure must be to be classified as "elevated." If, on the other hand, pressures that are only minimally elevated, are accepted as abnormal because it is known that these individuals will develop full-blown arterial hypertension in a few years, some 70 million Americans would be classified as being hypertensive in some degree. Thus, each reader is already or potentially hypertensive, or he stands a substantial chance of developing the disease in the future as the epidemic of hypertension gains momentum by giant strides.

There is no single cause of hypertension. As one prominent investigator stated, "We have every reason to believe essential hypertension is a mixture of a number of types of hypertension, the causes of which are not yet known. . . . The guts of the problem is that blood pressure rises because of an abnormal relation-

ship between flow [of blood] and resistance to flow. It is as simple as that."<sup>2</sup> Other researchers think the problem is more involved and are searching for endocrine factors and enzyme derangements. Most seem agreed that we cannot as yet know the cause of this sphinxlike disease. Personally, I cannot subscribe to the rather doleful outlook advocated by some reputable authorities, whose pessimism is so discouraging to the victims and potential victims of the disease.

### THIS YOU SHOULD KNOW

The facts are that *we do know some of the causes*, some of them very explicitly, and there is one very important and obvious cause that was known to medical practitioners four decades ago that seems to be totally overlooked in the 1970s. This important and astounding cause will be analyzed in great detail in later chapters.

If one carefully and extensively searches the medical literature and correlates the various minutiae of proven information, one comes up with a veritable treasure trove of known data about the causes of arterial hypertension that can be applied to bring relief to millions of hypertensive persons. This book is dedicated to attempting to correlate these many proven facts.

Even more encouraging is the fact that there are some things proven to remove those causes or to blunt their effects. Also, the potential causes can be prevented from ever becoming operative in many instances. This book is being written to let the scores of millions of hypertensives and potential hypertensives know that relief is available—now—not only through the use of strong drugs that are sometimes poisonous, but through simple means that are harmless but at the same time very effective.

*This you should know.*

## CHAPTER 1

### **Doctor, Please Tell Me**

“DOCTOR, PLEASE TELL ME, IS MY CONDITION serious?” This is the daily cry of thousands of patients in hospitals and medical offices. Such earnest requests deserve honest and factual answers from physicians.

#### **AN AURA OF MYSTERY**

Medicine has sometimes had one characteristic in common with the practices of primitive medicine men: an aura of mystery. Fees were sometimes treated as a sort of mystery, but progressive physicians have for many years freely quoted fees to patients in advance of surgery or treatment. Moreover, not too many years ago prescriptions were written in Latin, and very few patients could know what medicine they were taking. Now prescriptions are commonly written in English, and many progressive physicians insist that the pharmacist place upon the label the actual name and size of the pill inside the bottle. The patient has *a right to know.*

#### **“PATIENTS’ RIGHTS”**

Ours is an age of great interest in human rights—civil rights, women’s rights, the right to live and the right to die, and also the right to medical care. It is high time that we also consider “patients’ rights”—*their right to know.*

Some progress has been made in the “rights” of pa-

tients. They are, for example, becoming increasingly knowledgeable about many diseases. Recently the American Hospital Association sponsored a patients' Bill of Rights, in which one of the "rights" mentioned is the right of the patient to know the details of his diagnosis, treatment, and prognosis.<sup>1</sup>

Before surgery, patients often sign an "informed consent," testifying that they have been reasonably advised of the various risks and results of surgery. The archaic practice of not informing patients of the fact that they are about to die, possibly of cancer, is gradually being eroded. More and more, patients' right to know is being respected.

Yet despite great progress in this area, patients are still all too often not being told about such simple things as the level of their blood pressure, the results of laboratory blood tests, and the full facts of the risks involved in such common diseases as mild obesity or a mild elevation of blood pressure.

#### A STATEMENT OF FACT

It is high time that a patient's *right to know* about the condition of his own body and its treatment be accorded *full* respect. This emphasis is not in any way intended to charge physicians with deliberately withholding facts to the detriment of the patients. On the contrary, I assume that the welfare of the patient is always intended and that any lapses in information are inadvertent, for whatever reasons. My concern is the importance of making all vital facts available to the patient.

#### MILLIONS OF SUFFERERS

In the past few years, tremendous progress has been made in the diagnosis and treatment of elevated blood pressure. Nevertheless, millions of hypertensives still walk around uninformed of their danger, and also un-

treated. They have a human right to know that help is available—if only they will seek it. The most recent U.S. Census uncovered the fact that hypertension is a handicapping factor in the lives of 4.6 percent of the population.<sup>2</sup> How large this figure would be had all physical handicaps been pinpointed as to true cause is anyone's guess. No doubt the percentage would be three or four times larger.

The most common form of elevated blood pressure is sometimes called "essential" or "benign" hypertension to distinguish it from the "malignant" form, which is more sudden in onset and severity. But there is nothing at all "benign" about any disease that can bring on heart attacks and strokes, nor can such a disease be considered very "essential" to our well-being. Truly this disease, rather than being benign, is a very vicious disease. *This* every reader has a right to know.

## CHAPTER 2

### ***Overlooked and Neglected***

MANY OF THE FACTORS THAT INFLUENCE THE onset of vascular hypertension are known and commonly recognized by physicians, but its cause is still baffling. One medical textbook states of essential hypertension: "The cause cannot be removed, for it is not yet known." And a well-known medical professor recently stated: "Essential hypertension is the most common disease in the United States today, but *its etiology is unknown.*"<sup>3</sup> In a 1972 symposium on hypertension Dr. Irvine H. Page is reported as having asserted that

the "treatment" of hypertension "had outstripped the understanding of this disease of regulation, and he expressed hope that therapy would be patterned to fit the specific disorder in each individual."

Whenever possible, it is very important that the specific disorder or factors that influence vascular hypertension, rather than the symptoms, be treated. This book will present some of the factors known to influence or contribute to hypertension and to identify one "cause"—which might be called a "specific disorder"—that though quite easily remediable has been overlooked and neglected. Discovered many years ago, it has been grossly neglected even though it was adequately documented in reputable medical books and journals. Further, this vitally important cause can often be effectively remedied by the patients themselves when it is made known to them and they are given a little guidance. This book will provide some of this information and guidance.

#### **BY-PASSING ESTABLISHED CHANNELS**

Some lay readers, and certainly some physicians, may wonder why I have chosen to by-pass conventional medical journals in publishing forgotten concepts about hypertension. Why do I direct this information directly to lay readers? My reasons are simple. Hundreds of medical periodicals appear each month. If this important matter—which has several times previously been buried in the ponderous archives of medical literature—should once more be submitted to those journals, another delay of many years might be the end result. Hypertension is reaching crisis proportions in our society, and the simple facts of a neglected cause and treatment for it should be made available to patients in the quickest possible manner. Knowledge needs to be disseminated *now*.

**EXAMPLES OF DELAY**

For many years the relationship between vitamin C and resistance to infection (especially viral infections) was documented in scientific literature. Although a few medical practitioners put the information into practice for the benefit of their patients, most physicians never prescribed vitamin C in adequate dosages. In fact, "research" papers were published belittling its value in the prevention and treatment of the common cold and other virus-induced infections. But those of us who used the vitamin in adequate dosage knew that it was efficacious in treating virus infections.

Then the Nobelist Linus Pauling published his now-well-known book *Vitamin C and the Common Cold*. At first its message, too, was ridiculed by some medical circles. But now, belatedly, medicine is here and there taking some second looks, and research articles are beginning to appear showing that indeed there may be more merit in vitamin C than had generally been thought possible.

Because Pauling was no novice in the field of science, some medical scientists were courageous enough to check out his theories and observations on vitamin C and to publicly report their general agreement with Pauling's concepts. Several eminent research workers at the University of Toronto, for example, admitted that they "came to scoff but remained to praise" as they discovered that Pauling was indeed correct in his evaluation of vitamin C in relation to the common cold.<sup>3</sup> A more recent study in Dublin, Ireland, has also substantiated Pauling's concepts.<sup>4</sup> Had his book been authored by someone of lesser stature in science, who could say how many years would have passed before some of the truths about vitamin C would have become available to the general public?

Even more recently, other evidence emerging indicates that medical science has grossly underrated this valuable vitamin. For example, research reports of Dr. Raymond J. Shamberger of the Cleveland Clinic Foundation show that vitamin C as well as vitamin E and certain chemicals act as antioxidants in preventing cancer development. He has found that vitamin E will inhibit tumor formation and that "Ascorbic acid is also effective, but less so."<sup>6</sup> Dr. Shamberger buttresses his own experiments by citing the work of other investigators in New York who found that certain raw vegetables were prominently used by a control group who did not develop cancer. He then noted: "If this finding is meaningful, it would fit very well with our theories—raw vegetables contain large amounts of vitamins C and E, which are both antioxidants."

Yet another example of delay in the practical application of a medical advance is related to the measurement of blood pressure. The first measurements of blood pressure ever made known were those by Stephen Hales of England in 1711. His work was not followed up until more than a century later when, in 1828, Jean Poiseville perfected a mercury "hemodynamometer." Then it was not until near the end of the nineteenth century that the first blood pressure measuring device was brought over to the United States. Such is the slow progress of some valuable aids in medicine.

Finally, it took the world many centuries to appreciate the fact that salt ingestion was a factor in the causation of vascular hypertension. More than 4,000 years ago, in about 2600 B.C., Ch'i Po made the notation that "if too much salt is used in food, the pulse hardens."<sup>7</sup> Obviously he was describing the hypertensive effect of salt, but it was not until 1948 that American

researchers at Rockefeller Institute came to a similar conclusion.

These are but a few examples of how exceedingly valuable medical facts *can* lie buried and largely neglected, or even rejected, for many years. Did not the observation of Ch'i Po lie dormant for forty centuries? Hopefully, the setting forth in this volume of another neglected and long-forgotten facet of truth about hypertension may now prove to be a benefit to many.

But before we delve into this neglected aspect of hypertension, in the chapters that immediately follow we shall first lay down a broad foundation by discussing the facts relative to hypertension in general. The *scores of millions* of hypertensives and future hypertensives in the United States have the right to know that help in understanding hypertension and its treatment is available. May your travels through the succeeding chapters be a fascinating and informative journey.

## CHAPTER 3

### **What Is Normal?**

BEFORE WE TRY TO DEFINE WHAT IS A "NORMAL" pressure, let us briefly consider what is meant by the numerical figures used to designate blood pressure. Your doctor may have said that your pressure was 150 over 90. What did he mean by those figures?

The higher of the two figures used is the maximum pressure in millimeters of mercury measured in the brachial artery of the arm. That pressure represents the maximum effort of contraction of the heart at the final

pumping effort of that particular stroke. We call this upper figure the *systolic pressure*.

The lower figure is the diastolic pressure. It represents the lowest pressure attained in the brachial artery between heart contractions (diastole). Stated in another way, the heart must exceed or overcome that pressure with every stroke in order to pump any blood at all into the general circulation. It is a sort of "back pressure" that acts as a "load" against the action of the heart.

To illustrate: if we are pumping up an auto tire and the tire has in it a pressure of 30 pounds per square inch and we desire to raise it to 35, we must exceed the 30 pounds with each thrust of the hand pump or we cannot get any additional air into the tire. So with the heart. It must exert a pressure greater than the diastolic pressure in order to get any effective work done at all.

Doctors usually record the two pressure figures thus: 120/70, as a matter of convenience. We shall henceforth use this manner of designating pressures; the higher figure being the systolic and the lower the diastolic pressure.

#### A FALLACIOUS IDEA

Several decades ago it was commonly believed that the systolic (upper) blood pressure should normally be 100 plus one's age. Thus, an eighteen-year-old should have a pressure of 118 and a man eighty, one of 180. It is now known that this rule of thumb is a complete fallacy: An aged person with a pressure of 180, plus arterial hardening, stands a better than average chance of sustaining a serious stroke or brain hemorrhage. Nevertheless, the dangerous concept is taking time to die out.

It is also known that when the blood pressure rises to a certain level (which varies with different individuals) the regulatory mechanism of the brain is affected and brain damage can occur.<sup>1</sup> This makes it imperative

that blood pressure be kept at a "normal" level, for no one knows ahead of time at what point hypertensive damage might take place in his brain.

### SOME HISTORY

According to Dr. Irvine Page, an eminent authority on blood pressure problems, "Hypertension was scarcely even taken seriously before 1930."<sup>2</sup> It was only about sixty years ago that Dr. James Herrick of Chicago diagnosed for the first time a "heart attack" in a person who was still alive. In the intervening years much knowledge has been gained in the field of heart and blood vessel disease, and researchers realize that, together with arteriosclerosis, hypertension lies at the foundation of much heart disease.

A few decades ago very little serious effort was made to effectively reduce high blood pressure levels. It was thought that perhaps the heart and kidneys would be detrimentally deprived of much-needed blood if blood pressure levels were reduced. It is now known that such theories were not valid. Now the aim of treatment is a normal blood pressure.

### ARBITRARY AND ARTIFICIAL LIMITS

A few years ago the Society of Actuaries made extensive studies of the lives and deaths of 4 million life-insurance policyholders. It concluded that any proven pressure above 140 systolic or over 90 diastolic was abnormal to the extent that definitive treatment should be undertaken. This was an arbitrary "upper limit" set of figures. Some specialists feel that the diastolic should be allowed to reach 90 in men and 100 in women before treatment should be advised. Other specialists disagree with this concept, for it is difficult to reconcile it with present medical facts. Also, why should women be saddled with a higher pressure?

**MORE REALISTIC LIMITS**

Readings of 130 systolic in younger persons have been shown to be but precursors of even higher readings in middle age. Teenagers sometimes carry diastolic levels of 100. Surely these levels should be considered but a foretaste of worse to come in adult life, especially if obesity should supervene. Younger persons should be concerned if their systolic pressure at rest is above the 120s or the diastolic above the 70s. The 140/90 figures arbitrarily considered as the upper normal only mean that the pressure is approaching *dangerous* levels and needs treatment. Common sense dictates that one should try to attain a safety margin *well below* the hypothetical 140/90 figure.

Dr. William B. Kannel, director of the continuing and very thorough Framingham study of cardiovascular diseases over a period of years, has this to say about what is a normal blood pressure: "All cutoffs are artificial. . . . An ideal pressure would be the lowest pressure you could achieve without going into shock."<sup>3</sup> For all ages, whatever the ideal normal might be, it is no doubt quite a bit lower than the 140/90 postulated as the "highest normal" by vascular physicians. Certainly, anything *above* 140/90 urgently deserves treatment to prevent probable dangerous future complications.

**CHAPTER 4*****Your Right to Know***

PHYSICIANS ARE BECOMING INCREASINGLY aware that they should tell their patients what their

blood pressure readings are. Yet all too often doctors just brush off the inquiry of their patients with "It's OK" or some similar remark. This is unfair to the patient, who may be lulled into a sense of false security.

Time and again I have had patients come to me with severe nasal or eye hemorrhages due to elevated blood pressure and when I have asked how high their pressure was when last taken by their family doctor they have replied, "I don't know, but Doc Jones said I was OK." The danger in this attitude on the part of physicians is illustrated by the following case report:

One of my close friends, in his fifties, was driving along a country highway when as passed out. Upon coming to a little while later, he found his car resting in a cornfield, fortunately still upright, even though it had left the road and passed through several fences. My friend was able to drive to the next town, where he sought the services of a physician, who examined him and said he found "nothing wrong," although he did prescribe some pills. The physician even told my friend that his blood pressure was normal.

A couple of days later, during a subsequent visit, the doctor said that his blood pressure was better, that is, lower. Obviously he had prevaricated the first day or else had taken an indifferent attitude toward an issue as important as elevated blood pressure. That first day he should have told the patient that his blood pressure was elevated and that without doubt he had had a loss of consciousness due to a temporary loss of blood circulation to some vital brain centers in connection with his abnormal circulatory problem. He should have warned him further that he was grossly obese, that obesity is often associated with high blood pressure, and that under the circumstances he could become a candidate for a stroke—that he should therefore receive regular monitoring of his hypertensive condition and seek relief

from his obesity, which is often a necessary treatment in the correction of hypertension.

The patient has a right to know these basic facts and to know how he should live in the future so as to lessen the likelihood of leaving his wife a widow and his children fatherless. As it was, it was many months before another physician gave my friend warning of the seriousness of his condition.

### **ILLUSTRATIVE CASES**

The case of Mr. H., age seventy-two, is typical of those patients whose hypertension has not been taken seriously. He had off and on been treated for hypertension by his physicians in California. While vacationing in Idaho he developed a nose bleed that seemed to clear in a little while, but a week later he developed a massive nose bleed and was brought into my office for emergency care. His blood pressure, even after a generous loss of blood, was 178/98. Besides arresting the hemorrhage and sealing the broken nasal vessel, I gave him several blood pressure capsules, and upon examining him two days later his pressure was 144/92.

I explained to him the importance of keeping the pressure at 140/90 or below. He replied that this was the first time anyone had taken a real interest in controlling his blood pressure. When I mentioned the possibility of sustaining a stroke if the pressure went too high, his wife volunteered that they had many friends who had suffered just such an experience. I then impressed upon them the importance of each family having its own blood pressure monitoring equipment and checking their pressures daily.

Another case had tragic results because a physician declined to advise the patient of his elevated pressure. This patient consulted me a number of years after the tragic episode had occurred.

At about age thirty-two Mr. J. was being treated for a lung condition at regular office visits. His blood pressure was taken at each visit, but whenever he asked what the pressure was he was told that it was normal or all right. Three years later, while sitting at his desk, he suddenly noted that his right arm would not function. Medical help was obtained from another physician, who found that Mr. J. had suffered a stroke and that his blood pressure was 240 systolic.

The new physician phoned the office of the first doctor to find out his previous blood pressure readings, and to his astonishment he found that the patient had had a pressure of about 180 systolic during all the three years that the first doctor had treated him.

Fortunately Mr. J. made a satisfactory recovery with only minimal disablement of his right arm. He is now (thirteen years later) on the disabled list, not only because of the stroke but more prominently because of his lung problem. By taking regular medication, his blood pressure is now kept at about 120 systolic.

Less than a month after examining the foregoing case, I saw a patient who had lost the vision of one eye due to vascular disease that had not been properly monitored, and the patient had not been adequately informed as to his condition or the danger he faced.

#### **YOUR RIGHT TO KNOW**

A recent Harris survey indicates that an increasing number of doctors now tell their patients their blood pressure readings. Yet in only 35 percent of the survey were actual numerical figures given to the patients. This is far short of the 100 percent goal that should be sought if patients are to become knowledgeable about their hypertension.<sup>1</sup>

The next time your physician takes your blood pressure, insist that he tell you the figures. You have a right

to know. If he plainly refuses to divulge the figures, you might seriously consider finding a competent physician who is among the more modern breed who know that only the well-informed patient can intelligently cooperate in any treatment or rehabilitation program.

## CHAPTER 5

### ***“Anybody’s Guess”***

“IT IS ANYBODY’S GUESS HOW MANY HYPERTENSIVES there are in the United States; estimates vary from 10% to perhaps 20% of the adult population. Whatever the number it is enormous. The incidence is particularly high among blacks and women.”<sup>1</sup> According to one study, among the inner-city blacks the incidence is 40 percent.

Surveys of population groups on the East Coast and West Coast, based on a diastolic reading of 91 or more as being abnormal, indicate that 26 percent of the general population may suffer from hypertension.<sup>2</sup> The incidence seems to be rising sharply. Consider how much higher the percentage incidence would be if included, as being potential hypertensives, were those readings that are above 85 diastolic and those with systolic elevations without a corresponding diastolic elevation. The figure could be about 70 million Americans—a problem of staggering magnitude.

So great is the incidence of high blood pressure that “If every hypertensive in the country were identified and told to seek treatment tomorrow morning, the patients would clog the streets and highways, not to men-

tion physicians' offices."<sup>3</sup> There are *tens of millions* of hypertensives in America.

### "NO EXCUSE"

Even though hypertension's detection and correction are simple, an editorial in the *Medical Tribune* stressed the enormity of the problem: "There is no chronic disorder which is so common and so easy to detect yet which is so often missed, no disease which is so ominous in portent and so undertreated in practice, no disorder manageable by so extensive an array of therapeutic agents. In hypertension good medicine is so simple and the rewards so great that no excuse is left for the penalties of neglect—stroke, heart and kidney damage."<sup>4</sup>

A later editorial stated it even more strongly: "It is no longer necessary to document the appalling universal frequency of hypertension or the grim consequences in morbidity and mortality which make hypertension *the greatest single cause of death*. Neither is it necessary to establish that elevated pressure can be controlled."<sup>5</sup>

### WHO IS TO BLAME?

What are we in America waiting for? The *Journal of the American Medical Association* answers: "increase physician awareness, and increase public awareness." It states further: "There is an uneasy feeling in some quarters that many physicians, for a variety of reasons, seem not to want to treat hypertension, except in its more serious manifestations."<sup>6</sup> This statement is not my indictment as the author of this book; it is from an official article. Physicians do not, as a group, take the hypertension crisis seriously enough. One group of investigators gloomily confessed that of known hypertensives, "only 11% are adequately treated."<sup>7</sup>

That some physicians still do not realize the seriousness of an elevated pressure is attested to by state-

ments like the one in which a physician referred to "an 82-year-old woman whose blood pressure is normally in the range of 170/90" and he spoke of its having "been successfully maintained" by treatment. Yet he was surprised and disturbed when her pressure rose a mere 40 points to 210/110 and produced mental confusion.<sup>8</sup>

In another medical journal in 1973 a cardiologist referred to 180/110 as being considered "normal" by some authors when the facts are that such patients are usually heading for a stroke and an early demise.

In yet another medical journal a highly placed cardiologist advised that a fifty-three-year-old woman with a blood pressure of 160/104 should not be treated for one year—only given reassurances—but that if her pressure did not go down in one year, she should receive treatment. In the meantime, the disease had ravaged her cardiovascular system for one year. Any sensible layman would naturally ask why, if she needed treatment at the end of the year, should she not have received treatment at the beginning of the year—if the blood pressure readings were identical?

#### "PUBLIC AWARENESS"

Lest all the blame be placed on physicians, let us face the fact that 60 percent to 65 percent of the hypertensive individuals in this nation are either unaware of their condition and consequently never present themselves for diagnosis, or else know their condition but fail to obtain adequate treatment. Much of the blame for this neglect must rest upon the patients themselves. One of the greatest unsolved problems in therapy is to convince patients to continue with treatment so that grave, needless, and fatal complications will not develop.

### GRAVE COMPLICATIONS

In almost 25 percent of cases of congestive heart failure studied in the Royal Postgraduate Medical School in London, hypertension was part of the disease picture.<sup>9</sup>

In one complication, as arterial pressure rises, the heart muscle enlarges to try to keep up with the added load. Sometimes as this enlargement takes place, the aortic valve ring (the outlet valve of the heart) dilates and the pumping action is no longer efficient due to the leaky valve, so the heart fails further. In connection with arterial hardening, hypertension can also be responsible for a saccular dilatation of the aorta in the abdomen or chest, which may produce sudden rupture.

These are but a few of the grave heart complications of hypertension, which, considering all its effects upon other organ systems, is now coming to be regarded as the single greatest cause of death among adults in the United States. Hypertension "is one of the most important, if not the most important affliction producing premature sickness, disability, and death in our adult population."<sup>10</sup> These facts you have a right to know. Is it not time that definitive action be taken by every citizen against this "enemy" of the American people?

### OTHER NATIONS

The United States is not the only nation where elevated blood pressure presents a problem. In Japan hypertension accounts for fully 50 percent of all life insurance application rejections. In fact, the problem is so great that the mortality rates for Japanese over the age of sixty are progressively higher than those in the United States. It is reliably believed that this reflects the higher incidence of hypertension and strokes experienced by the Japanese.<sup>11</sup> European countries are also experiencing an increase in hypertension incidence.

### A CONTRAST

In contrast to overburdened, sophisticated societies, primitive areas seem to be free from hypertension. A Tufts University professor recently studied 2,500 persons from six tribal groups of the Solomon Islands and found not a single case of hypertension and no signs whatever of coronary heart disease. These groups were completely uncontaminated by Western ways, food, and culture. Even the aged showed no increase in blood pressure. Those groups of natives who had become somewhat accustomed to Western foods and the use of canned foods that contained salt (tinned meat and fish) were found to have the highest pressures of any of the group studied.<sup>12</sup>

It should be obvious that the ever-expanding hypertension epidemic from which the Western nations are suffering is due to their way of life. Because diet and beverages are part of our everyday life, they must be the prime suspects as to causation. Living habits, too, must come under close scrutiny.

### INCREASED RISK

Recent extensive studies have shown that persons with only slightly elevated blood pressure are in about four times greater risk of sustaining coronary heart attacks than are persons with normal pressure. Furthermore, paralyzing strokes occur about four times more often in untreated hypertensives than in those who have received careful treatment. According to actuarial projections, for a man aged thirty-five years, a mild elevation of blood pressure can result in a life shortened by seventeen years.<sup>13</sup>

Even a moderately high "normal" figure of 130 systolic pressure in a college youth will, several decades later, increase his prospective death from coronary

heart attacks by 60 percent. And according to Dr. Irvine Page, the use of cigarettes by youths with a hypertensive tendency raises the death expectancy by as much as 110 percent.

Thus, even small increases in blood pressure above the lower "normal" limits are not without danger. Unless its course is intentionally altered, a "little" hypertension will inevitably bring on greater problems.

The eminent British authority on blood pressure Sir George Pickering stated in a 1972 symposium that "insurance figures show that men aged 30-39 with a pressure of 130/90, have a death rate 1.4 times greater than expected. If the pressure is 160/100 the mortality is five times higher than expected."<sup>14</sup> He also gave the assurance that "the lower your arterial pressure, the greater your expectation of life."

According to a Scottish report, in women who also have coronary heart disease, hypertension is a more dangerous risk to life than even elevated cholesterol and heavy smoking.<sup>15</sup>

#### **HELP IS AVAILABLE**

The general public has a right to know and should be told that a large group of medications that can effectively bring to normal and control elevated blood pressures is now available. Unfortunately, while these drugs are quite freely dispensed to those relatively few persons whose hypertension has been diagnosed and who present themselves for treatment, knowledge of some of the simpler modalities for controlling and preventing elevated blood pressure are not so well known. It is my firm conviction that the public has a right to know about these modalities, and in later chapters we shall call attention to these simple remedies and methods that the patient can use for his own benefit.

## CHAPTER 6

### ***Drug Therapy***

SOPHISTICATED DRUG THERAPY IS NOW AVAILABLE for hypertensive patients. An impending stroke can often be aborted with drugs, and a systolic pressure reduced from over 250 to safe limits within just a matter of hours: some of the more powerful drugs work with amazing speed.<sup>1</sup> It is not my purpose to promote drug therapy for high blood pressure. Not at all! But there are times and cases where drug therapy is desperately needed.

If a child falls into the lion enclosure at the zoo we do not stand around and argue about how the child got in there and who was to blame. We take immediate action to rescue the child, then later try to find out the "whys." So in hypertension. If a dangerously high pressure is discovered, a drug is used to bring it to a safe level and *then* what can be done to prevent another rise in pressure is ascertained.

It is not within the scope of this book to discuss details of drug therapy in hypertension. Each type of drug has its own indications and contraindications in any given case. Not all cases require the same type of drug management. Indeed, some cases need no continuing drug management. They can be treated without drugs. Some of th drugs are generally very safe, with few so-called side effects ( a euphemism for "toxic effects"). However, almost all modern drugs have some potentially toxic (or poisonous) effects. Some produce an aller-

gic reaction; others, drowsiness, tissue destruction, gastro-intestinal irritation, or kidney damage. If any dangers arise from the use of drugs a competent physician knowledgeable about such things will adjust the treatment.

Because drugs do produce toxic reactions, the wise patient and his wise physician do all that they can to reduce the need for drugs by promoting proper diet, rest, and exercise; by discontinuing smoking and alcohol consumption; by avoiding all unnecessary stimulants; as well as by creating personal tranquillity insofar as attainable.

Recently, for example, a fifty-year-old nurse consulted me about a large hemorrhage over the white portion of one eyeball. The obvious cause was elevated blood pressure, which had ruptured a fragile vessel. She was fortunate that it was not in a brain center, which could have made her into a cripple for life. Some mild drugs promptly brought her blood pressure to normal within three days and it seems disposed to stay there with only occasional help from the drug. Now, hygienic measures to improve her health are being undertaken.

Through improved living habits many hypertensives can maintain a normal blood pressure, the ideal goal toward which we should strive. To help the patient identify the existence of hypertension and to set forth better habits of living that will relieve the hypertension, preferably without the use of drugs, should be the goal in every case. It is a fact that in the milder cases of hypertension, those that can be best helped through nondrug therapy, the drugs do not work too well anyhow.

## CHAPTER 7

### **Warning Signals**

AT 2 A.M. THE TELEPHONE AWAKENS THE DOCTOR. From the other end of the line comes a frantic female voice. "Doctor, Elmer has been having a severe nosebleed for two hours! What shall we do?"

After a hurried drive, Elmer comes into his doctor's office cradling his face in a big bath towel soaked in blood. He tells the story of having had several recent episodes of nosebleed, but this is the worst one. Besides, lately he has been having more headaches than usual.

A quick measurement of his blood pressure reveals that the systolic pressure is over 240 and that the break in the little artery in his nose is really a blessing in disguise, acting as a safety valve to release the excess pressure.

Besides having the broken vessel sealed by appropriate treatment with electrocoagulation under local anesthesia, Elmer is in need of treatment for the elevated blood pressure. This is promptly instituted and will be diligently monitored during return office visits. As a matter of fact, Elmer will need to be under medical care and supervision for the rest of his life, although once the pressure is stabilized, visits will not need to be frequent.

How fortunate Elmer is that his messy nosebleed occurred instead of having a similar rupture of an artery in his brain with a resultant stroke, paralysis, and

possibly death—or maybe something even worse, a living death, with life continuing on but Elmer being unable to speak or walk or even feed himself. His nosebleed had served as a friendly warning signal, giving him time to correct his high blood pressure before it could result in a paralyzing or a fatal stroke.

### **OTHER SIGNALS**

Another warning signal that frightens many persons appears when they gaze into the bathroom mirror some morning to discover a large red blotch of hemorrhage covering the white portion of the eyeball. In distress they rush to their physician only to learn with relief that the interior of the eye is not affected and that no visual loss need be feared. Many of these individuals turn out to be hypertensive. As in the case of the nurse cited in the preceding chapter, once more a safety valve has popped.

Other persons are less fortunate. For them the first warning of high blood pressure comes when they sustain sudden loss of vision from a hemorrhage *inside* the eye. Some of these recover good vision. Many never do. But in either event it would be far better to lose the function of one eye than to lose the function of a vital part of the brain, as in a massive stroke.

A pounding headache may, in some instances, serve as a warning signal, while in other cases the person may only complain of mild but persistent headache. In other cases nervous tension and fatigue may be the premonitory symptoms. So also may dizziness, heart palpitation, insomnia, and pains around the heart. In still other instances frequent urination as well as urinary and extra-long menstrual bleeding may be indications of elevated blood pressure. Sudden mental confusion can also be an indication of elevated pressure. It appears that the sudden pressure elevation causes the brain ves-

sels to develop a spasm, which reduces the blood supply to the vital centers and in turn impairs the mental functions.

### **HYPERTENSION'S INSIDIOUS NATURE**

Several years ago a very eminent, middle-aged heart specialist whose blood pressure five months earlier had been 130/86 sought emergency care at a hospital for a severe nasal hemorrhage. It was discovered that since his last examination his blood pressure had risen to 220/160. Such is the insidious nature of vascular hypertension. It can "sneak up" on one who has been pronounced perfectly healthy and physically fit only a few weeks earlier. However, in the case just described, the diastolic pressure of 86 should have been a warning signal of possible impending trouble. Many "authorities" consider 86 or even 95 or 100 to be a "safe" diastolic reading, but my personal opinion, based on experience, is that any reading over 80 diastolic should be carefully monitored at frequent intervals, for it may be an indication of future trouble. In borderline cases one reading of slightly elevated pressure may not be sufficient to establish the diagnosis of hypertension; at least three readings at weekly intervals may be needed.

In many instances persons feeling fit, while undergoing "routine" physical checkups, are found to have elevated blood pressure. The finding is a blessing, for treatment can be instituted well in advance of damaging complications. For this reason I stress, later in this book, the need for frequent blood pressure determinations for almost all age groups, but especially for all adults, no matter how healthy they may appear and feel.

### **ADOLESCENTS**

The importance of testing youths for hypertension is

underscored by a careful study conducted over a period of seven years in Evans County, Georgia.<sup>1</sup> A group of 435 representative adolescents were studied. With pressures above 140/90 as the criterion, 11 percent were found to have hypertension. It was possible to follow 30 of these cases for seven years. During this time two died of cerebral (brain) hemorrhage. One developed hypertensive heart disease. Sustained hypertension with cardiovascular and cerebrovascular symptoms developed in three more cases. Five were found to have sustained elevated blood pressure, but none of this group complained of any symptoms. An additional seven had lesser degrees of hypertension, and the final group of twelve became normotensive—that is, had normal pressures. In the five sustained cases of hypertension, the most common associated finding was that of obesity with continuing weight gain as the years progressed. A similar study conducted elsewhere revealed that black youths had an unusually high incidence of hypertension.

Thus, it is clear that even adolescents should have blood pressure evaluations periodically, especially if they are at all overweight. This practice will help to prevent much potential vascular crippling of later years.

Obesity in itself, even without elevated blood pressure, may be a warning signal of hypertension. "Weight gain influences systolic and diastolic pressures regardless of age."<sup>2</sup> More on that in a later chapter.

#### RACE

Blacks have a much higher incidence of hypertension than whites, and darker blacks have a higher incidence than the lighter-skinned. One survey showed blacks to have ten times the incidence of elevated diastolic pressure compared to whites.<sup>3</sup> Japanese also have a higher incidence of hypertension than whites. Whether some of these differences represent mostly genetic and racial

differences or dietary and cultural factors is not fully clear.

### DANGER AHEAD

Having noted some of the warning signals of hypertension, we can now consider the fact that vascular hypertension may *in itself* be a warning of worse things to come. Note, for example, this assertion: "The medical director of the Framingham heart study, Dr. William B. Kannel, said the study shows hypertension is the principal precursor of congestive heart failure."<sup>4</sup> Next, consider this comment, based on Dr. Kannel's work: "In spite of powerful modern drugs, the outlook for a patient with congestive heart failure remains 'appalling.' Within a year of diagnosis, 20% of men and 14% of women with the disease will probably be dead, 60% of the men and 40% of the women will not survive five years."<sup>5</sup>

Consider also the findings of University of Chicago scientists, who microscopically examined the kidneys of more than 2,000 autopsied cases. They found that only 3 percent of those persons who had normal blood pressures in life showed evidence of hardening of the small kidney arteries, whereas "all" cases who had in life been hypertensive showed kidney arteriolar damage.<sup>6</sup> When the kidneys fail, death is near unless a successful kidney graft can be made.

Every person with elevated blood pressure has a right to know the results of the Framingham and Chicago studies. He also has a right to know that the dire predictions need not materialize if diagnosis and treatment of the hypertensive tendency are adequate and are undertaken in time.

Every reader of this book has the right to know that hypertension is not an innocuous disease, that it is dangerous and can be deadly. But it need not be a hopeless disease if you will heed the warning signals

and follow sound principles of living instead of pandering to taste and emotional prejudices in your living habits.

## CHAPTER 8

### ***Test Your Own***

WHETHER OR NOT YOUR PHYSICIAN REVEALS your blood pressure reading to you, you should get your own blood pressure instruments (a sphygmomanometer and a stethoscope) and learn how to take your own pressure or have some member of your family learn the technique. It is really quite simple.

The instruments need not be expensive. A physician can secure them for you for less than twenty-five dollars for the "sphyg" and less than five dollars for the stethoscope. There are many sources. (Darby Drug Co., Inwood, Long Island, New York, is a convenient mail order source for your physician. Local surgical supply houses also carry them.) Do not secure a "bell"-type stethoscope. Insist on a flat diaphragm endpiece that can be slipped under the edge of the "sphyg" cuff if desired. The Velcro type of fastener is the most convenient. The type with multiple cross bars is inconvenient and outmoded. Do not accept such. Insist on a "Velcro."

A physician or any experienced graduate nurse can teach you how to measure blood pressure, but for your convenience we shall describe the technique. With the subject seated or reclining, wrap the deflated flexible cuff around the upper arm above the elbow. Fasten it

securely. Place the instrument dial where it can be easily seen.

Next place the stethoscope in your ears, being certain that the slight bend in the earpieces points somewhat forward—not backward. Place the diaphragm endpiece of the stethoscope either on the front of the elbow joint or, better still, just above it and somewhat toward the inner side of the arm. Here it should rest directly over the large brachial artery of the arm.

Now you are ready to close the valve of the pressure cuff of the "sphyg" and pump up the pressure in the cuff to at least 180. If you hear a beating sound, pump it up still higher to 200 or until you no longer hear the pulse beat.

Then slowly open the release valve at the base of the air bulb, allowing the cuff to deflate slowly. When you hear the pulse beat in your ears you have found the *systolic* pressure. Note the reading on the dial. Continue to allow the cuff to deflate slowly and when the pulse beat sound disappears you have determined the *diastolic* pressure reading. It is all as simple as that.

It will take a bit of practicing to perform this test quickly so that the subject's arm is not compressed too long, causing pain. If this occurs, quit for a few minutes and then begin again. After a few times you will master the skill with dexterity. An experienced physician will do it a bit more accurately and quickly, but your own readings will be reasonably acceptable.

A deaf person who cannot use a stethoscope can ascertain the more important of the two figures—the systolic pressure—by simply feeling the pulse at the wrist: when it begins to reappear as the pressure is released in the arm cuff, the systolic figure has been ascertained. This method is reasonably accurate.

**ADVANTAGES**

Every family should own blood pressure equipment. It could be life saving by detecting elevations in pressure so that medical help can be secured in time to avoid dangerous effects. Then, as treatment is managed by the physician, the patient can follow the progress at home by taking his pressure one or more times daily and reporting any undue fluctuations upward or downward so that the drug or other treatment program can be modified as needed.

**OLDSTERS**

The common practice of having elderly hypertensives come to the medical office only once every six to twelve weeks can be dangerous. With the wide pressure fluctuations sometimes experienced by oldsters, it is possible for them to have their pressures creep up gradually and to suffer serious hemorrhage as a result. I have personally seen such patients. Also, a marked drop in pressure due to drug overdosage can bring serious results.

I have personal knowledge of oldsters who would without doubt have died of a stroke had they not received regular monitoring of their blood pressure at home. Patients cannot afford frequent physicians' home calls, nor can the doctor afford the time for such calls every day. With a home "sphyg" such calls are rarely necessary.

**INADEQUATELY TREATED PATIENTS**

We previously referred to an assertion made by hypertension experts that only 11 percent of patients with high blood pressure are adequately treated. One reason for this inadequacy is the fact that pressures are not monitored often enough (daily is the ideal), and there-

fore when regular monitoring is omitted, management of the disease is bound to be inadequate.

With tens of millions of untreated, or inadequately treated, hypertensives in North America, there simply are not enough doctors, nurses, and professional assistants available within the immediate future to detect or monitor them all. Only as families secure these facilities for themselves will this colossal, first-magnitude problem be conquered.

#### **“TIME BOMBS”**

So use your own blood pressure apparatus in screening your family members for evidences of hypertension. Don't forget that not all hypertensives have symptoms that send them to a physician; one can have a lethal condition without knowing it. And it is a fact that many hypertensives go about their usual round of life's duties completely oblivious to the fact that elevated pressure is taking its destructive toll in their bodies.

A blood pressure survey made in a Welsh manufacturing community involving 98 percent of all its residents disclosed that there were many hypertensive persons, some with diastolic pressures as high as 130 and 150, who were totally unaware of any symptoms referable to their cardiovascular system.<sup>1</sup> Such were carrying about with them a veritable “time bomb.” Do not allow a time bomb to tick away in your family. When the “bomb” goes off it may be too late to effect a good recovery.

#### **YOUR RIGHT TO KNOW**

It is your right to know the blood pressure levels of yourself and your family. There is no law against owning a sphygmomanometer and a stethoscope. Assert your rights to be knowledgeable about your own health. More and more physicians are recognizing the

utmost importance of the concept that patients should be able to take their own blood pressure readings. A few diehards may still be opposed to the modern concept, but their ranks are rapidly dwindling. Pay no attention to their antiquated ideas.

## CHAPTER 9

### ***The Cause***

IN ONLY ABOUT 5 TO 10 PERCENT OF PATIENTS with high blood pressure can the cause be ascribed to some rare condition such as a tumor that secretes pressure-raising substances ("pressor" substances). We shall not try to discuss these rare conditions but rather focus on the 90 percent of all cases that have been generally considered to be without any known, specific cause as far as conventional medical science is concerned. Sometimes these cases are called "essential" hypertension or "idiopathic" hypertension—that is, without any known specific cause. Could it be that in 90 percent of the cases in a disease so common—and for which there are many fine symptomatic remedies—it is impossible to ascertain the cause? Hardly.

Although many of the factors that influence the onset and maintenance of hypertension are understood, there is still much that is unknown about why some persons are prone to hypertension and others are not. Recent studies have tended to show that a factor of hereditary predisposition operates in some instances. What is different about those individuals who seem prone to hyper-

tension? How does their chemical system function differently?

In any hydraulic system where fluids must be circulated, anything that impedes the flow of the fluid raises the internal fluid pressure. In hypertension, obviously some chemical substance(s) acts upon the smaller blood vessels in the body's periphery to shrink their internal size and thus increase the resistance to blood flow. Another mechanism that can raise the pressure in a fluid system is the thickness or viscosity of the fluid. Any elevation in its osmotic pressure potential by an increase in certain salts and chemicals will also increase the fluid pressure. Without doubt all of these factors operate in various degrees to cause hypertension.

#### **NERVOUS TENSION**

It is common knowledge that nervous tension or strain tends to increase blood pressure. Peripheral blood vessels contract—a normal physiological response when more blood and oxygen are needed to meet stressful situations. But when such contraction becomes a continuing and chronic pattern of life, then the body responds by developing a peripheral blood vessel resistance that raises the arterial blood pressure, thus placing an added load on the heart pump.

One stressful job that has recently been studied and found to be filled by persons who tend to have elevations in blood pressure is that of aircraft controllers in the control towers of large airports. Studies conducted by investigators from the University of Michigan and Boston University Medical School revealed that there was a direct relationship between the amount of job stress experienced by air traffic controllers and the incidence of hypertension. On the average, the disease struck the traffic controllers about seven years earlier than it did the control group, who were also engaged in

aircraft duties. "Where traffic density is high, prevalence rates are higher at every age than in low-density towers."<sup>1</sup>

### **YOUR PERSONALITY**

A San Francisco-based, nationally known heart specialist, Meyer Friedman, M.D., has classified people as to susceptibility to heart attacks, labeling one group type A and the other type B. A type A man tends to be a compulsive "driver" who is continually trying to meet deadlines, one who forges ahead at all costs. By contrast, the B type is more easygoing and less tense. Type A sustains two and one-half times as many heart attacks as type B.<sup>2</sup>

Since tense persons are more prone to have elevated blood pressures, a type A person is not only a risk as far as heart attacks are concerned but also as to hypertension complications.

Other investigators agree in principle with the San Francisco physician: "Hypertension and heart disease are aggravated by the environment and living habits such as rich, imbalanced diet, sedentary living and increased tensions."<sup>3</sup>

### **CONSTITUTIONAL DIFFERENCES**

It has been possible to genetically inbreed strains of rats that are either hypertension prone or largely hypertension resistant. It would appear that members of the human race sometimes fall into similar categories. Some families tend toward hypertension development and other families tend to be resistant to the disease. Studies indicate that if one's parents are hypertensive the chance of developing hypertension is doubled.<sup>4</sup> Nevertheless, although the reasons are not clear, epidemiological studies indicate that environmental factors

play a much more prominent part in the causation of this disease than do genetic factors.

### CONTRACEPTIVE PILLS

According to J. Edwin Wood, professor of Medicine at the University of Pennsylvania, "Some women with hypertension experience a significant additional increment in arterial pressure with the use of oral contraceptives."<sup>5</sup> He further pointed out that normotensive women can develop hypertension within one to six months after beginning to use contraceptive pills.

Dr. Wood believes that the estrogenic hormones in "the Pill" cause a loss of vascular tone, a loss of blood vessel elasticity, and a thickening of the inner lining of the vessels. He recommends that no female who already has a hypertensive tendency receive the Pill and that all women who are on the Pill have their blood pressure checked at frequent intervals. He also warns that there is danger in continuing the use of the Pill in the presence of evidence of elevated blood pressure.

Obviously, not all female hypertensives are on the Pill, but since thousands of our women readers may be on the Pill, it would be a disservice to them to deprive them of the right to know that there is a risk to be considered in their use of the Pill, the risk that elevation of blood pressure with its many complications might ensue. Further, they need to be warned that only if their blood pressures are monitored frequently and regularly can an incipient pressure rise be detected.

An editorial in the prestigious British journal *Lancet*,<sup>6</sup> has also pointed out that estrogens disturb the hormonal control of blood pressure and can thus produce hypertension. Besides the estrogen-containing contraceptive pills inciting hypertension, one wonders how often estrogens taken for relief of menopausal symptoms might also contribute to elevated blood

pressure. As far as I know there have been no studies made of this.

Twelve university medical centers recently collaborated in a study that revealed that women who use the Pill are nine times more likely to sustain brain strokes than are nonusers. A British study indicates that "one woman in [about] 10,000 may suffer a stroke attributable to oral contraceptives."<sup>7</sup>

In further condemnation of the Pill, contraceptives have been found to impair sugar tolerance (a diabetic danger) by depletion of the body's stores of the vitamin pyridoxine.<sup>8</sup>

### **ENDOCRINES**

Endocrine hormones such as catecholamines (note the "amine" portion of the word, for it will appear again in a later chapter) are elevated in many cases of essential hypertension. Mental stress will produce this glandular effect in some patients.

## **CHAPTER 10**

### ***Drop That Salt***

AFTER AMERICAN INVESTIGATORS REDISCOVERED what a Chinese physician discovered 4,000 years ago—namely, that salt is a causal factor in hypertension—much progress has been made in the treatment of this disease, not only with salt-depleting drugs but also with low-salt diets. Nevertheless, many patients under drug treatment for high blood pressure have not been advised by their physicians to curtail their salt intake. In fact,

"Most physicians . . . seem to be unaware of the amount of salt in the American diet."<sup>1</sup> The very obvious has been neglected. How much more sensible to reduce salt intake than to take a potentially toxic drug to get rid of the excess salt through the kidneys.

Every patient has a right to know, and should be told, that a high or even "average" salt intake will tend to increase his blood pressure.\* (Some 70 percent of rats placed on a high-salt intake develop hypertension.<sup>2</sup>) It is the sodium ion of sodium chloride that seems to be the principal offender. Sodium retention produces fluid retention in the tissues, which in turn raises the pressure in the arteries. The entire mechanism of salt retention and fluid retention is controlled by various hormones associated with the kidneys. When this hormonal balance is deranged, the sodium is retained and blood pressure rises. Researchers do not as yet fully understand all the interrelationships in this delicately balanced bit of body chemistry, but the role of sodium in high blood pressure is clear enough that most antihypertensive drugs have been developed to facilitate the excretion of sodium through the kidneys, thus lowering blood pressure.

The *average* salt intake in the United States is about three teaspoonsful per day. Some gourmets use considerably more. By reducing salt intake to less than one-third of average, many hypertensives are greatly benefited and drug therapy can often be correspondingly reduced.

#### SODIUM AND POTASSIUM

It has long been known that in the body sodium and potassium act in some ways as opposites. When one is

\* A recent study revealed that hypertensive individuals consumed more than four times as much salt as did the nonhypertensive controls.

high, the other tends to be low. Thus, an eminent medical specialist recently asserted that not only is an increased salt intake a factor in causing hypertension, but a decreased potassium intake likewise is a factor. Further, treatment with salt-depleting drugs at the same time depletes potassium, and this compounds the severity of the hypertension.<sup>3</sup> This effect need not occur if proper dietary practices are followed; in fact, proper dietary measures may markedly reduce the need for the powerful and dangerous drugs used to treat hypertension.

Many hypertension specialists seem to fear that patients will not accept a program of salt restriction even though salt restriction is eminently successful therapy for hypertension. One has stated: "Perhaps a totally sodium-free diet could reduce blood pressure and keep it within normal limits, but someone would have to have enormous motivation to stay on such a diet all his life. It simply isn't realistic."<sup>4</sup> I maintain that a diet can be tasty and acceptable even with some salt restriction. The choice has to be made between avoidance of the deadly effects of elevated blood pressure and a bit of dietary inconvenience. The other choice is the common one so often practiced, that of medicating the patient with drugs to help eliminate sodium from the blood. However, one risk of this kind of therapy with certain drugs can be that men may experience an enlargement of their breasts (gynecomastia) and impotence.<sup>5</sup>

## **BABIES**

A few years ago it was found that babies, owing to heavy salting (five to ten times more than needed) of commercially canned baby foods, tended to develop elevated pressures. This salting may have been somewhat curtailed in recent years, but mothers should check each brand of canned baby food to make sure

that it is not heavily salted. Actually, it does not need to be salted at all, for babies have no inborn taste prejudices. Why make babies into salt addicts? Why visit upon the child the dietary sins of the mother?

In animal studies "every animal of the 25 [who were fed] on processed baby food had developed hypertension after eight months. Twelve had died, and two were seriously ill. All 15 controls were alive and none had hypertension."<sup>6</sup>

Just to suit the personal tastes of mothers (or baby-food manufacturers) thousands of children have been condemned to a life of future hypertension. "A team of researchers from Washington University, St. Louis, reported that essential hypertension may affect children as young as 4 years."<sup>7</sup>

## **ADULTS**

The current heavy dependence on the convenience of canned foods and TV dinners results in a much higher salt intake than is needful. Rats fed on conventional American diets, unless they are of strains that are resistant to the disease, tend to develop hypertension.<sup>8</sup> Milk and milk products, which are used freely in our society, are rich sources of sodium. So are meats.

Some persons use their salt shakers heavily, believing that they need a great amount of salt because wild animals seem to crave salt and walk great distances to find "salt licks." But they fail to realize that it is the herbivores that do this, not the carnivores. The carnivores only hang around the salt licks to prey on the herbivorous beasts that go there to get salt. Man, when eating "steaks," the food of carnivores, does not usually need additional salt any more than a lion needs to salt his "steak."

Besides watching salt intake, a hypertensive should avoid food with a high sodium content. It is of interest

to note that the original foods our Creator gave to man in Eden (fruits, grains, and nuts) are exceedingly low in sodium. By contrast, garden vegetables contain twenty times as much sodium and foods of animal origin (as a class) contain almost fifty times as much sodium.

## **WATER**

Large amounts of sodium may also be contained in tap water. Low-lying regions such as the Bahamas have much sodium in domestic waters, and persons using this water are prone to hypertension. If salt has been used in the recharging process, artificially softened water is usually rich in sodium. This water should not be used by hypertensives; indeed, no one should drink such water. If the domestic water is to be softened, it is a good practice to leave one cold tap in the kitchen that is unsoftened. This can then be used for cooking and drinking.

A very recent English comparative study of the blood pressures of people living in towns with soft water and those living in towns with hard water showed conclusively that the residents of the soft water towns had higher blood pressures. Cardiovascular disease mortality rates were higher in the towns with soft water.\* Soft water usually has higher levels of sodium than hard, which tends to be richer in calcium and magnesium.

You should check with the public health department of your community and learn how much sodium is in your domestic water. You, as a citizen and tax payer, have a right to know this: it is your water system as much as anyone else's. Assert your right to know. If you have your own well, you should have it tested for minerals, including sodium. Health departments will

usually have this done for you without cost. You pay your taxes for such services.

If you purchase bottled spring water for drinking, assert your right to know what its sodium content is. Ask the water firm for a certified chemical analysis report. Also request a bacteriological report. News dispatches tell of some bottled water firms whose products carry higher than acceptable bacterial counts. This has also been true of some "distilled" water sold to the public.

To any thinking person, some obvious questions should occur. Is the high incidence of hypertension in adolescents in any way connected with the free use of sodium (salt) in packaged and prepared foods? In baby foods? In artificially softened water? Without doubt these factors play a part in the increasing incidence of both juvenile and adult hypertension.

### **NITRATES**

Nitrates in the diet or drinking water can also raise blood pressure, as was ascertained by studies at the University of Oregon Medical School. Nitrates are used in the soil as fertilizers and nitrates are also used on some meats to enhance their red color—deceiving the consumer as the real quality and appearance of the meat.

### **OTHER FACTORS**

Additional causes, or aggravating causes, of high blood pressure include too much fat in the diet and in the blood, lack of exercise, obesity, diabetes, and the use of tobacco. These and other factors will be discussed in the chapters that immediately follow.

## CHAPTER 11

### **“Why Will Ye Die?”**

THE THREE MAJOR MEDICAL HEART RISK FACTORS are elevated blood fats (and blood cholesterol), high blood pressure, and the use of tobacco. Smoking can be controlled by quitting, high blood pressure can usually be controlled by medication and other simple means such as diet, and elevated blood fats can largely be controlled by adopting a prudent diet. So what are we waiting for? In the words of the ancient Bible prophet Ezekiel, one is constrained to cry out to modern Americans, “For why will ye die?” It is so unnecessary to die so young from the ravages of these largely preventable diseases.

Finnish investigators, too, consider the three greatest risk factors in heart attacks to be cigarette smoking, elevated blood cholesterol, and hypertension. They state further that the presence of any one of them doubles a person's chance of sustaining a heart attack, any two of them triple one's chance of a heart attack, and that the presence of all three raise the chance of a heart attack almost tenfold. Such is the interlocking relationship of hypertension, elevated blood cholesterol, and smoking.<sup>1</sup>

In recent years residents of North Karelia, Finland, have eaten a great deal of dairy products (fats) and very few vegetables. As a consequence heart attack rates are epidemic in proportion—much higher there than in other areas of Finland where milk and other

dairy products are not used so freely. In North Karelia, recent studies indicate that decreasing the dairy products (fats) intake also decreases the heart attack rate.

Elevated blood fats contribute to arterial hardening, which in turn contributes to the aggravation of high blood pressure—and vice versa. In the words of Dr. Jeremiah Stamler, "Practically everything we call hypertensive heart disease is really a combination of hypertensive and arteriosclerotic heart disease."<sup>22</sup>

Cholesterol is a fatlike normal constituent of the body manufactured in normal body chemistry. However, when dietary intake includes large amounts of cholesterol or large amounts of saturated fats with a low preponderance of natural vegetable fats, or if sugars or proteins\* are taken to excess, blood cholesterol and blood fat values tend to rise to abnormal levels. The fats and the cholesterol are in turn deposited in the arteries, making them less pliable and causing obstruction—a narrowing of the vessel lumen. In heart attacks the coronary arteries usually become either so narrowed or totally blocked that the heart muscle cannot be nourished with blood, and a portion of the heart muscle dies.

#### THE AMERICAN DIET

In animal experiments supervised by Dr. Robert Wissler of the University of Chicago, after only two years marked evidence of aortic hardening was present in most of the monkeys that had been placed on a typical American diet. About half of the inner surfaces of the aortas studied were covered with grossly discernible fatty lesions. By contrast, control animals fed a "prudent" diet that eliminated eggs and restricted dairy and

\*The fact that a diet high in proteins can contribute to elevation of blood fats and cholesterol was reported from studies at the University of Virginia. See *Science News*, August 21, 1971.

meat fats developed very few lesions in the great artery that carries blood from the heart.<sup>3</sup>

While recent work initiated by John Yudkin of England has shown that refined carbohydrates such as sucrose (ordinary sugar) tend to induce cholesterol production and arterial hardening, Dr. Jeremiah Stamler of Chicago takes the view that "Much of what is called carbohydrate-induced hyperlipidemia [too much fat and cholesterol in the blood] is really a calorie-excess hyperlipidemia." In other words, in order to get arterial hardening from that class of foods, one has to eat carbohydrates and sugars to excess. Such overuse of sweet foods is common in affluent American society.

Further evidence that the typical American diet contributes to artery hardening was found in another animal study. Rhesus monkeys placed on an artery-hardening diet for eighteen months, including liberal amounts of lard, developed hypercholesterolemia (too much cholesterol in the blood) and severe coronary arteriosclerosis that resembled "remarkably, the naturally occurring disease in human beings."

Studies of eighteen healthy young men in Antarctica over a period of ten months revealed that blood fats are more likely to increase when much sucrose (ordinary sugar) is ingested.<sup>5</sup> Americans consume well over 100 pounds of sucrose, per person, per year—one very real reason why Americans tend to carry high blood cholesterol levels.

### **CLOGGED LUNGS**

Dietary fats taken to excess not only "clog" the arteries but also can reduce oxygen interchange in the alveoli of the lungs. When excessive fat intake stops, the lung sacs tend to revert to normal. This report,<sup>6</sup> from the Fitzsimmons Army Hospital in Denver, Colorado, will be followed with interest by investigators of the

long-term effects on the lungs of persons who have persistent hyperlipidemia and continue to ingest much fat.

Fats and carbohydrates eaten to excess not only clog the lungs and the arteries but also tend to favor the development of diabetes, which in turn further aggravates arterial hardening and thus favors elevation of the blood pressure. A vicious cycle is established.

For practical purposes it is no longer deemed necessary to make blood determinations in the average patient for the various fractions of the blood fats. The cholesterol level of the blood is now considered to be a reasonably adequate index to the degree of hyperlipidemia and arterial hardening.<sup>7</sup>

#### **"GUESSTIMATES" AND NORMAL LEVELS**

What is a "normal" cholesterol level? Two eminent cardiologists from the University of Nebraska have stated that "there is no 'normal' cholesterol reading."<sup>8</sup> They spoke the truth, for many of the so-called "normal" figures used by physicians are only estimates of what some physicians think is normal. Perhaps the figures should be called "guesstimates."

A few years ago some physicians considered blood cholesterol readings of 300 or more to be within normal limits. Many even now believe the normal range to be between 150 and 250. Recent studies, however, tend to show that truly "normal" levels should be quite low.

A California group studied various primitive tribal groups that did not live on American-type diets and concluded that levels ranging from 170 to 200 were perhaps the actual normal range.<sup>9</sup> (Typical "normal" fifty-year-old U.S. males commonly have figures of 225 to 250.)

Another report by a Harvard University team that

studied 400 hard-working Ecuadorean villagers found that many had surprisingly low cholesterol levels, frequently in the 150 range *and even below*. Of the villagers, 38 were over 75 years of age and several were over 100 years old, the oldest being a man of 121 years whose photograph could easily pass as that of a man of 65, by U.S. standards.

Cardiograms of the 20 oldest villagers disclosed heart disease in only 2. The total caloric intake was low and the fat intake (usually of vegetable origin) was exceedingly low. Protein intake was found to be adequate and was mostly from vegetarian sources. Much fruit was eaten.

Accordingly the ideal healthy range for blood serum cholesterol must be concluded to lie in the range of 150 to 190 milligrams per cubic centimeter of blood serum. *This you have a right to know.*

The next time you have a cholesterol blood test insist that your physician give you the results in actual figures. You have a right to know. Do not be surprised if he tells you that a figure of 200 or even 250 is "normal" or acceptable. The naked facts of the newer findings have not as yet filtered down to every medical office. Such things usually take years.

### **CHILDREN**

Before we leave the subject of cholesterol let us consider a few more factual studies. "Children in Monroe, Wisconsin, have cholesterol levels nearly double those of children living in a rural area of Mexico where the incidence of heart disease is low."<sup>10</sup> The Mexican group was said to lead more active lives, to eat less, and to use less sugar and saturated fats.

An investigator at Louisiana State University studied 333 children aged 3 to 16 who were consuming a typical American diet. He found that some children aged 3

and 4 had blood cholesterol levels "already as high as those of adults 23 to 25 years old."<sup>11</sup> Similarly, Canadian investigators have found elevated cholesterol levels in Canadian children. As a result they strongly urge that cholesterol assays be routinely done "of all children" to detect the ones that are candidates for arteriosclerosis in the early years.<sup>12</sup>

Some 2,000 grade-school children of one U.S. health-minded church group—namely, Seventh-day Adventists—in the Los Angeles area were tested for blood cholesterol levels by Dr. Paul Starr of the White Memorial Medical Center.<sup>13</sup> He found that 8 percent of them had blood levels of 220 or higher, whereas 150 would be considered normal for that age group. The abnormally high levels were found in as many first-graders as eighth-graders. In the elevated group there were boys and girls, both fat and thin.

The journal report stated that Dr. Starr attributes this unusually high incidence of elevated cholesterol in the Adventist children "to diet heavy in dairy products and eggs." Thus, it is not only meat fats that tend to elevate cholesterol levels. Any of the saturated animal fats (as well as saturated, hydrogenated vegetable fats) tend to elevate the blood fats.

#### **EXCESS VITAMIN A**

Some persons ingest large quantities of vitamin A in the belief that it will enhance health. This practice is not without some danger relative to arterial hardening from excess cholesterol formation. A research report from Ghana, Africa, has shown that a high vitamin A and fat combination in the diet predisposes to "a striking influence on the biosynthesis of cholesterol between various tissues." The more vitamin A is stored, the more those tissues will accumulate cholesterol. Hyper-

tension, together with arterial hardening, is an important cause of death in the city of Accra, Ghana.<sup>14</sup>

## **DRUGS**

Human beings do not like to discipline themselves. Most sick people wish for a magic pill that will cure all their ills. For hypercholesterolemia there now are pills that *tend* to lower blood fats. But Dr. Donald Fredrickson of the National Heart and Lung Institute has noted: "*One should never undertake drug treatment of hyperlipidemia without knowledge of what diet alone can do.* Neither the mechanism of action nor all possible side effects of most hypo-lipidemic agents are known" (italics in original).<sup>15</sup> In spite of wise counsel such as this, many patients are treated with dangerous drugs without allowing simple, natural diet therapy to first be tested. Diet therapy can be effective in the vast majority of cases of elevated blood cholesterol and should always be tried before drug therapy. *This* you should know.

## **YOUR RIGHT TO KNOW**

The vast mass of evidence now accumulating indicates that the ingestion of large amounts of saturated fats tends to produce an elevation of blood fats (including cholesterol) and hardening of the arteries. This in turn makes elevation of the blood pressure more likely as the two conditions tend to aggravate and elevate each other. *This* you have a right to know.

## CHAPTER 12

### **“Tenderize” Your Arteries**

IN A POPULAR MAGAZINE PROFESSEDLY DEVOTED to improving the health of its readers, I recently spotted a classified ad for “organic beef” from cattle grown on the best of feed. One of the sales pitches was “Confined to pen three months for tenderness.” This meant that prior to slaughter the animal was deprived of health-promoting exercise and was stuffed with fattening food so that billions of fat globules would be deposited between the idle muscle fibers, giving the muscle cuts, upon slaughter, that highly prized “marbleized” appearance. The “marble” seen on a cross section of a piece of “tender” beef is nothing more nor less than a liberal sprinkling of highly saturated fat. This is the very substance that induces arterial hardening and cholesterol formation in the human body.

Consider the steer, confined to a pen a few yards longer and wider than himself. He and his fellow steers can barely move about as they are fed fattening rations and stand around in their own filth. This is how No. 1 choice tender beef is produced. How healthy can such a steer be? Imagine yourself penned up for three months in a room ten feet square and eating fattening foods and standing in your own filth. How healthy would you become?

The fact that commercial beef is produced by overfeeding is well documented. In one magazine article<sup>1</sup> a veterinarian urged beef feeders to “push” their cattle

with a forced-feed program to the extent that some cattle would die—so that “about 10 percent of the animals show acidosis.” Also, “If you never lose a steer” from overfeeding, “you are a lousy feeder.” How about the consumer who eats the “lousy” meat from the overfed steers that barely escaped death from overfeeding? How healthful is their meat intake?

Muscle meat is not all protein by any means. No matter if you trim the visible fat off a rib roast, for example; it still contains more than 20 percent far-saturated, arterial-hardening fat. If you looked through a microscope you would see millions of fat cells distributed between the small muscle bundles. These fats are what you eat when you eat tender, marbleized beef. If your steak gives you two ounces of protein, it also gives you about one ounce of saturated fat (including some cholesterol) at the same time—heart- and blood-vessel damaging fat. “Tenderized” steaks do not produce supple arteries but rather make them more susceptible to hardening, rupture, and increased pressure. *This you should know!*

### STRUCTURAL FATS

By contrast, consider wild game. Their carcasses contain only about 5 percent fat. Their muscle meat is truly “lean.” Little of the “tenderized” saturated fat is deposited between the muscle fibers. Moreover, the fat of wild ruminant animals (cattle, too, are ruminants) is very low in the saturated fats and is rich in phospholipids,<sup>2</sup> the fats used by body cells in their structure. Phospholipids are structural fats as distinguished from storage fat, such as the saturated triglycerides found in “tenderized” steaks. *This you need to know.*

A British study indicated that in domesticated ruminant animals the saturated fats exceed the unsaturated by fifty times, whereas in the free state ruminants had

only two or three times as much saturated fat as unsaturated in their tissues. Specifically, in dairy products the saturated exceeded the unsaturated by fifty times. In American mothers' milk the ratio was only about one to ten and in Japanese mothers it was about one to twenty.<sup>3</sup>

### THE WORST KIND OF FATS

Little wonder that primitive peoples who live on the flesh of wild game have little arterial hardening. Little wonder that our forefathers, who did not prize tenderized meat as highly as the present generation, were afflicted with much less arterial disease. In our modern zeal to produce high-quality animal protein we are at the same time producing a high quantity of saturated fat of the worst possible kind, with a high tendency to strike the consumer's heart with coronary heart disease, and with a high tendency to promote arterial hypertension, obesity, diabetes, and a host of other diseases.

Devotees of "natural" food are only fooling themselves when they produce and partake of something as unnatural as a steer fattened in a pen for three months. There is nothing more unnatural than such food. Natural food, whether from the vegetable kingdom or the animal kingdom, is not ordinarily generously supplied with saturated fats like the long-chain triglycerides found so abundantly in beef. Egg yolk would be one common exception. But there are no comparative figures available contrasting eggs from domesticated fowl with those of wild fowl.

The purpose of this chapter is not to promote wild game as food, for there are risks in their flesh also; they often carry parasitic disease. The game meats are mentioned only to show how artificial and unhealthful our meat supply is. The use of the common meats constitutes a definite risk to health—a very high risk to car-

diovascular health. I would be less than honest if I did not identify this risk for you. *This* you have a right to know.

### TRIPLE PRICE

Three times the consumer must pay for tenderized steaks. First, there is the higher monetary cost as compared to natural protein foods without the saturated fats. Second, as he consumes the steaks, the purchaser pays a high price in damage to his body and a shortening of his life. This is the highest price of all.

Finally, if his life is not ended by a cardiovascular death from the fats in the steaks, in a frantic effort to stave off the ravages that the fats in the steaks produce in his body he must eventually embark on a lifetime of medical expense. Before he invests in "tenderized" steaks, the consumer should seriously ask himself if they are really worth the price that he will have to pay —the triple price.

Now take your choice: Do you prefer fragile, brittle arteries or supple, elastic healthy arteries? Vascular disease or vascular health?

## CHAPTER 13

### ***“Sweet and Dangerous”***

WE ALL NEED TO KNOW THE SICKENING FACTS about sugar—the most commonly used food additive in the United States. In a recent book entitled *Sweet and Dangerous*, John Yudkin of London University implicated the excessive use of sugar as the cause of a great

many maladies, including coronary and vascular diseases such as high blood pressure, arteriosclerosis, and heart disease. (From his experiments, Yudkin concluded that the correlation between heart trouble and excessive sugar intake is even greater than that of heart trouble and fats.) In addition, obesity, diabetes, and many other serious diseases—including some forms of cancer—are implicated. These diseases are among the chief "killers" of the human race, so we must consider sugar—in the excessive quantities as commonly used—to be one of our chief enemies.

Various investigators have clearly shown that sugar—especially when used freely in the presence of saturated fats, such as the animal fats—tends to induce arteriosclerosis. The work of J. A. Little and associates<sup>1</sup> reveals that demonstrations in human subjects showed "that dietary sugar was an important factor in elevating the serum lipids . . . in patients already hyperlipemic when they were receiving a high animal fat diet." Thus once more the animal fats and sugar are incriminated in dangerous diseases.

### STICKY SUGAR

Not only does excessive sugar have a tendency to raise the blood fats but it seems to increase the tendency of the clotting particles (blood platelets) in the blood to clump together and cause clotting, with consequent coronary arterial stoppage. Thus, it is not only on the outside that sugar is a "sticky" substance; it has a "sticky" effect on the inside also. *This* you should know.

### SUGAR AND B COMPLEX

In order for the body to metabolize sugars a quantitative amount of certain B complex vitamins is required. Since sugar is so pure that it is vitamin-free,

during its utilization it depletes the body of B vitamins derived from other sources. Thus, sugar may produce an avitaminosis-B with neuritis as a possible consequence.

A lack of thiamin will cause enlargement of the heart. I vividly recall a demonstration by the eminent nutritionist Dr. Tom Spies in which he showed how a heart could become much enlarged from the lack of thiamin but could be reduced to a more normal size when he administered the missing vitamin.

### **PYRUVIC ACID**

Many years ago experimenters showed that a free use of sugar could cause an accumulation of pyruvic acid in the system—including the brain. Is there anyone who wishes such substances to “clog” his nervous system and dull his brain?

### **ABBREVIATED LIFE SPAN**

Yudkin's experiments indicated that the life span of animals fed a sugar-rich diet was reduced by 33 percent. If his results can be applied to humans, it becomes readily apparent that sugar contributes to life shortening. By a free use of sugar, puberty is hastened and so also are old age and senility. How many readers wish to become prematurely old and senile?

### **HOW MUCH SUGAR?**

How much sugar does the average American consume? Nearly 120 pounds per year. And because there are some who eat but a fraction of that amount, others obviously consume much more, upward of 200 pounds each per year. By contrast, 100 years ago Americans ate less than 20 pounds each per year. In just 100 years we have increased our sugar consumption by 500 percent—an increase of a pound per person for each year.

**TABLE SUGAR**

In recent years we have heard many complaints about food additives and their harmful effects upon human health, but we do not hear enough about the evil effects of the most common excessively used additive of them all: table sugar. Raw sugar, brown sugar, and even honey produce essentially the same deleterious effects upon the human body as white sugar. This fact may come as a surprise to some readers.

**HONEY**

Honey devotees may imagine that they are safe from the hyperlipidemic effects of the sugars, but honey is actually worse in this regard than common table sugar. It has been found that it is the levulose fraction of the common sugar that is the most active in raising the blood fats, and it is common knowledge that levulose (fructose) is the principal sugar component of honey. *This you should know.*

**CONCLUSION**

We can conclude, then, with Yudkin, Little, and many other investigators, that sugar is an important factor in the causation of human arteriosclerosis and in coronary artery occlusion. Without doubt a person eating a good diet of unrefined foods can safely eat some sugar, for he obtains large amounts of the B complex vitamins from other foods. But great conservatism in its use is indicated.

So, if you are hypertensive or have a tendency thereto, my advice would be to largely banish the sugar bowl from the table and only rarely eat sweet desserts. As with other condiments, the free use of sugar is largely a matter of bad habit and a perverted appetite. You can learn to get along well with very little sugar. You will

not only enjoy better health and a clearer mind but you may add to your life span. So educate, or reeducate, your taste buds.

## CHAPTER 14

### **“Walk Your Dog”**

THE TITLE OF THIS CHAPTER WAS INSPIRED BY a lecture given several years ago by a Swedish doctor. He told his audience to “Walk your dog, even if you do not have one!”

He explained his wry humor this way: Dog owners walk their dogs, rain or shine, because the dog simply must have exercise. But if the dog dies, the master usually stops walking and then, in turn, he dies. The master needs and gets as much health benefit from the walking as his dog does.

In his talk the doctor stressed that a suitable program of exercise tends to slow the heart rate and thus reduce the load on the heart by as much as 10,000 to 30,000 needless beats per day. He extolled the well-known value of walking over many other forms of exercise, which may actually be harmful. He discouraged the practice of “pushups” by ordinary persons and stressed what others have also reported—namely, that isometric exercises can create a dangerous load on the heart and that blood pressure can be raised by such exercises.

In a seeming about-face he pointed out the dangers of a sedentary life and stated, “My opinion is that it is more advisable to pass a careful medical examination if one intends to be sedentary in order to establish

whether one's state of health is good enough to stand the inactivity." Obviously there are greater dangers to the heart and blood pressure from inactivity than from a moderate degree of healthful exercise like walking.

### ISOMETRIC EXERCISES

Isometric exercises not only can create a dangerous load on the heart, as reported by the Swedish expert, but are completely joyless and without useful purpose for hypertensives, for they raise instead of lower the blood pressure. "Severe isometric exercises can be particularly dangerous. . . . In patients with pre-existing hypertension . . . the blood pressure may reach extremely high levels."<sup>2</sup> Except for wrestlers, isometrics is mostly a fad program that should be avoided.

### DANGERS OF JOGGING

As for jogging, it too is mostly a fad, despite the glowing reports one reads in the Sunday paper supplements and in popular magazines. Anyone who plans to undertake it should certainly first obtain a careful cardiovascular evaluation.<sup>3</sup>

I am fully conversant with the fact that studies conducted in England have shown that "vigorous exercise promotes cardiovascular health" and that such proper exercise in suitable subjects offers protection against heart attacks.<sup>4</sup> I also know that men with cardiovascular disease have been shown at the Mayo Clinic to be benefitted by carefully graduated, strenuous exercise, such as jogging.

But in such groups of research cases the patients have been carefully monitored before and during the exercises and resuscitative machinery and physicians have been in constant attendance. May I point out that the average patient does not have these facilities available to him, nor would there be enough doctors and

sophisticated electronic instruments available to stand by if every cardiovascular case were to take up jogging.

Considering that about 20 percent of heart attacks are of the "silent" type, being discoverable only by special tests, therefore, the average person past the age of twenty-five has no way of knowing for himself whether or not his heart is fit for jogging. "Moderately strenuous exercise, taken as an isolated thing unto itself, probably provides no benefit and certainly exposes the patient to great risk." So concluded Dr. Brendan Phibbs of the University of Arizona.<sup>5</sup> Let me repeat, unless persons are carefully monitored during exercise, jogging carries with it definite risks for hypertensives.

Everyone can easily find suitably beneficial exercise without having to accept the dangers associated with jogging. Jogging is principally for horses. For man it is usually a completely joyless, compulsive activity and has no place in the ordinary antihypertensive program.

#### **BENEFICIAL EXERCISE**

At this juncture let us take note of the fact that the recent craze for jogging has somewhat died down. Too many new joggers have died or been physically harmed because they were not fit to jog. So now some medical men have "discovered" striding—a ten-dollar word for old-fashioned walking. A brisk walk is healthful for most persons. It produces an invigorated flow of blood through the 60,000 to 100,000 miles of blood vessels in the body. Walking is healthful in both summer and winter. It tones up the blood vessel system and tends to normalize minor elevations of blood pressure. Lack of exercise has an opposite effect.

Moderate exercise is beneficial for most hypertensives. Besides walking, simple yard or garden work are among the best forms of exercise (but do use care with strenuous things like shoveling snow). As hypertension

comes under good control, heavier exercise may often be undertaken, but avoid violent sports. Allow your physician to advise you. A gradually increased exercise program, properly supervised, can permit "an individual to perform more work at both a lesser heart rate and a lesser systolic pressure."<sup>7</sup>

#### **A NORMALIZER**

Exercise is a great normalizer of body function. Judicious walking, such as a half-mile walk, has, according to Dr. Emmanuel Cheraskin, been known to drop blood sugar values as much as 25 to 40 percent.<sup>7</sup> If it will do that for diabetes, think of the benefits it has for hypertension. Exercise also normalizes the appetite but does not increase it detrimentally so as to cause overeating.<sup>8</sup>

#### **WORK**

Several years ago a comparative study was made of matched Irish brothers, comparing the cardiovascular health of those who remained in Ireland with those who had emigrated to the United States.<sup>9</sup> It was found that the American brothers had a much higher incidence of heart and blood vessel disease, even though those in Ireland ate freely of saturated fats and consumed more calories. The great difference in end results was due to differences in their exercise. The Irish brothers worked and used their muscles, while their American counterparts were sitting, riding, and taking life easy—physically. However, in this easy way of life their hearts could not take it easy but were overburdened with work, and in some cases eventual heart failure resulted.

Generally speaking, saturated fats and sweets are detrimental to good heart and blood vessel health. But it would appear that individuals who do heavy manual

labor can more safely metabolize these foods, which sedentary people must regard as dangerous. This finding establishes further what the Swedish expert said about the dangers of a sedentary life.

The great preponderance of evidence shows that moderately heavy, but not violent, exercise tends to reduce blood pressure levels, whereas inactivity raises it. Why not put this useful information concerning exercise and hypertension into action?

Try it!

## CHAPTER 15

### **Too Much Mileage**

IF ONE COULD PLACE ALL THE BLOOD VESSELS in just one pound of human fat end to end they would stretch out 5/6ths of a mile. On that basis 60 pounds of extra fat would add 50 miles of tubular distance to the circulatory system. The heart beats on an average more than 103,000 times each day. Picture the tremendous and excess load carried by the human heart in obese persons—just for the basic circulation of the blood, to say nothing about the extra work when the overweight person must exert himself.

Is it any wonder that obesity is one of the seriously aggravating factors in hypertension, and perhaps in some cases the prime precipitating cause? The arterial blood pressure simply has to be raised in order to fill all of those extra miles of blood vessels more than a hundred thousand times each day. Without the increase in

pressure, the tissues would be deprived of their basic nourishment.

Jeremiah Stamler, the well-known cardiovascular specialist, recently stated: "To my knowledge, no research data are available on the mechanism of blood pressure fall with weight reduction. Is it a consequence of reduced salt intake with calorie-restricted diets and saluresis [excretion of salt by the kidneys]? This question needs to be investigated. But the association between obesity and hypertension is unequivocal. The single most important known factor related to risk of hypertension is overweight—at least the single most important factor amenable to environmental influence—a phenomenon that research on high blood pressure has tended to neglect."<sup>1</sup>

A study of thousands of low-income persons in Louisiana revealed that more than 30 percent of that adult population were potential sufferers of hypertension. The survey also disclosed that those carrying a weight greater than normal showed an incidence of hypertension of 64 percent.<sup>2</sup>

Without doubt multiple factors operate to make obesity of such great importance in the causation and aggravation of hypertension, but is it not clear, in view of the great mileage of blood vessels added by obesity, that the added mechanical strain on the heart of necessity causes the heart to have to markedly increase its output, and consequently, secondarily, the vessels to increase the arterial pressure so that the new fatty tissues may receive nourishment? To ask the question is almost to answer it, for the answer is so obvious.

Obesity is indeed a "heavy" subject, not only as to pounds but as to its relationship to health. Let us consider a few facts concerning adipose tissue.

**AGING BABIES**

Fat babies have long been considered the hallmark of superb mothering. Such babies receive much admiration. They look so cherubic. However, it would appear that overfeeding of babies produces additional fat cells in the body (especially during the first year of life) and thus tends to produce future obese adults. Researchers at the National Institutes of Health have found that it can be predicted which babies are likely to become overweight can be predicted by determining how prevalent fat cells are in their tissues.<sup>3</sup> A goodly number of other medical studies have indicated that overfeeding of young children predisposes them to obesity in later years.<sup>4</sup>

"Excess weight is aging, it contributes to many diseases such as diabetes, high blood pressure and heart conditions," noted Dr. Neil Solomon of famed Johns Hopkins University.<sup>5</sup> Most certainly a person who allows himself to become obese is thereby aging his tissues faster than "normal." The sweet, plump little girl may be cute as a child, but as an adult she will grow old before her time. Fat children are not healthy children and rarely become healthy adults. *This you should know.*

**TWO FACTORS IN OBESITY**

According to studies conducted by Czechoslovakian investigators, human obesity depends upon two cellular factors.<sup>6</sup> In the early stages of obesity many new fat cells are formed—*they multiply*. In the later stages the fat cells increase in individual size—*they fill up*, with fat.

It is thus clear why it is so easy for an obese person to gain weight, and when he has reduced, why an occasional indulgence in too much rich food makes him

gain weight so much more readily than his slim friends. The fat ones just simply have so many more readily accessible cells in which to store the surplus food. It is easy to place it in storage but hard to take it out of storage. Obviously, in the light of the established facts, prevention of obesity in early life takes on great importance.

When should one start dieting for obesity? The answer is obvious. Begin at birth. An ounce of prevention is worth many pounds of fat.

An interesting insight into the reason why fat cells proliferate so readily in the young and then contribute to later obesity was found in some animal experiments that demonstrated that young animals, exposed to a chilling environment, grew more new fat cells than unchilled, control animals.<sup>7</sup> One cannot help but wonder if these findings could not also be applied to human beings and to wonder if the chilling sustained by small girls by the wearing of scant limb clothing in winter weather on their way to and from school, for example, might not serve to increase the number of their fat cells and in later years contribute to obesity.

#### **WHO EATS THE MOST?**

We do! According to statistics supplied by the UN Food and Agricultural Organization, the United States leads the world in calorie consumption, in spite of the fact that as a people, with all of our machines and labor-saving devices, we expend less calories on manual work than do most other nations. Americans (all ages included) average 3,390 calories per day. Hungarians are next with 3,180 calories, but many of the largely agrarian Hungarians work harder than Americans. India is twelfth on the list, with 1,940 calories.<sup>8</sup>

## SUICIDE

The most common suicide weapons in the United States are knives, forks, and spoons. A Milwaukee research team studied more than 73,000 overweight women and drew some very firm conclusions—among them that the obese fall heir to sixteen diseases that less rarely afflict their thinner friends. For example, diabetes as 4.5 times more frequent and high blood pressure 3.3 times more frequent among the obese than among average persons.<sup>9</sup>

Studies have revealed that obese individuals manufacture much greater amounts of cholesterol than do normal persons.<sup>10</sup> Thus, they are pushing themselves into arterial hardening with its complications and to an early demise as fast as they can. Truly, chronic obesity is too often a form of gradual suicide. Obesity produces elevation of both systolic and diastolic pressures.<sup>11</sup> *This you have a right to know.*

## MALNUTRITION AMID PLENTY

Dr. George Briggs, the eminent biochemist of the University of California, is quoted as stating: "Malnutrition affects at least half of the nation's people. . . . When you consider that the country's health bill is over \$70 billion a year, the estimate that \$30 billion of this is related to poor eating doesn't seem too much. . . . You can argue with me, but I think that at least 25% of all heart and cardiovascular diseases are attributable to bad diet. . . . Poor eating habits are responsible for 30% to 50% of dental problems, 98% of overweight problems and their consequences such as diabetes."<sup>12</sup>

A report from East Germany indicates that the government is taking a hand in the national diet, which is too rich in saturated fats and sugars: "Some 40% of East German women are obese, while about 20% of

the men are.”<sup>13</sup> Similarly, U.S. Public Health Service statistics indicate that among insured males age 30-39, 50% are at least 10% overweight and at age 50-59, 60% are overweight.<sup>14</sup> The “obesity epidemic” seems to be sweeping the affluent societies everywhere, and with it comes an increased incidence of elevated blood pressure.

In the British Isles more than half of the population is overweight. A study reported at a symposium of the Royal Society of Medicine estimated that a mere 20% overweight factor trebled the risk of sustaining a coronary heart attack.<sup>15</sup>

#### **THIS YOU SHOULD KNOW**

Don’t take the risk of having too much mileage in your blood vessels by becoming or remaining obese. “Obesity is a risk undertaken voluntarily, like smoking, or pregnancy or oral contraception.”<sup>16</sup> One does not have to *become* obese. One does not have to *remain* obese. One has to consent to it. Likewise, relief of the obesity requires a voluntary relinquishment of the risk and a voluntary assumption of the remedial steps, with their required self-discipline.

*This you should know!*

## **CHAPTER 16**

### ***Drop Those Sweets***

ACCORDING TO DR. JEREMIAH STAMLER, “IF THE hypertensive is hyperglycemic, a very common combination, this situation carries a very high risk.”<sup>17</sup>

Neither hyperglycemia nor established diabetes can be considered as true "causes" of high blood pressure. Nevertheless, because arteriosclerosis is so commonly associated with diabetes and also with hypertension, the presence of elevated blood sugar must receive attention in the management of hypertension. To some degree, each aggravates the other.

No attempt will be made here to describe the detailed management of diabetes, but since impaired tolerance of sugar, which often leads to frank diabetes, is so often associated with arterial pressure elevation and arterial hardening, readers have a right to know more about this association.

A substantial proportion of the blind, or partially blind, in the United States are so because of diabetes. A diabetic patient is up to twenty times more likely to become blind than is a nondiabetic person. If there is concomitant high blood pressure, the danger of greater bleeding and added visual loss is understandably increased.

#### **TOLERANCE TESTS**

The incidence and significance of a faulty sugar tolerance is not generally appreciated as it should be. Scores of thousands of patients have vague symptoms of bodily distress that remain undiagnosed. A four- or six-hour sugar tolerance test would bring to light many cases of diabetes and prediabetes. But too few of these tests are being made and physicians too often depend upon a single specimen of blood (or else a simple urine test) to decide an important matter that deserves greater attention and diligence.

It is my considered opinion, based on many years of experience, that every person over the age of forty would be benefitted by the knowledge gained from a

sugar tolerance test in which six to eight specimens of blood are drawn over a period of four to six hours. A two-hour test is helpful but not always dependable or significant. So do not settle for an abbreviated test. Demand of your physician a full-scale test. You deserve the best. It is your body. You are paying the bill. It is your right to know the facts, to know whether or not you have a normal blood sugar level and tolerance response in the event that you suffer from obscure symptoms that might be caused by a poor tolerance.

### STANDARDS

A fasting blood sugar level should not exceed 100 milligrams per cubic centimeter. A two-hour test after eating should not exceed about 120, and a four- or six-hour test, in order to be considered normal, should at no point rise above 160. You have a right to know all of the facts and figures of your test. Ask your physician to supply the actual figures. If he should advise you that figures substantially higher than the above are normal, you should seriously question such elevations as being acceptable.

If you are past the age of forty-five you should keep in mind the fact that diabetes has been found to be ten times as prevalent in the upper age group compared to the group below age forty-five. However, the "ten times" figure does not magically appear at age forty-five. Many persons under that age also develop diabetes. So be sure to have a suitable sugar tolerance test performed as soon as it is feasible.

Some physicians allow diabetics to carry a higher than normal blood sugar level so that the patient "feels better." There may be some instances in which this is proper, but I would question the wisdom of the practice in most cases. If the patient is going blind from the

ravages of diabetic retinitis or other eye lesions, just how well and comforted will he feel when the beauties of nature are no longer available to his eyes, or when he has to acquire a seeing-eye dog and a white cane?

There is now absolute laboratory proof that nerve degeneration takes place in diabetes in a direct relationship to excess elevation of the blood glucose level. British research has demonstrated that *sorbitol*, an alcohol formed from glucose metabolism, tends to accumulate in diabetics and causes nerve tissue damage.<sup>2</sup> Physicians who permit blood sugar levels to rise to higher levels than warranted are thus doing a distinct disfavor to their patients.

Male readers may be interested to know that the heavy ingestion of sugar causes a fall of as much as 34.3 percent of the blood level of the male sex hormone, testosterone.<sup>3</sup> The exact significance of this finding is not clear. However, it is a well-known fact that diabetic men often have lessened sexual potency.

As a matter of fact, in a study conducted at the Joslyn Clinic in Boston, about half of all diabetic men who had had the disease for at least six years and were in their fifties were impotent, and several more men in the study suffered from other sexual performance disabilities. Why should healthy men wish to risk developing diabetes with its chance of impotence by being careless about their sugar intake? At the present writing, impotence associated with diabetes does not readily lend itself to any definitive improvement with treatment.

#### YOUR RIGHT TO KNOW

Often when patients are asked how their diabetes is or how high their blood sugar level is, they reply that their physician says they are doing fine, but he has not, or will not, tell them what their actual blood sugar fig-

ures are. Such patients' right to know has not been honored. It should be obvious that if ordinary citizens are made knowledgeable about their own health they will be better able to cooperate with the physician.

So, whether we are considering blood pressure readings, cholesterol blood tests; or blood sugar tests, the patient should always assert his right to know the facts and actual figures. Do not accept any less from your physician.

## CHAPTER 17

### **Just Like the Beagles**

A FEW YEARS AGO, IN AN EFFORT TO STUDY the connection between lung cancer and cigarette smoking, experiments were conducted with beagles. A by-product of this research was the finding that *all* of the smoking dogs developed high blood pressure while none of the nonsmoking dogs did so. The evidence for an association between smoking and hypertension is incontrovertible.

In a symposium on hypertension Dr. Jeremiah Stamler noted: "The great bulk of the medical profession is not keenly aware of the additional risk of cardiovascular mortality with a given level of blood pressure for a cigarette smoker versus a non-cigarette smoker. . . . Cigarette smoking is the most impressive single additive, much more so than hypercholesterolemia, in terms of increasing the risk to the patient who has hypertension."

A Massachusetts study has shown that male cigarette

smokers have three times as many strokes as non-smokers, and strokes are largely associated with vascular hypertension.<sup>2</sup>

Men used to be much more vulnerable as sudden-death risks than women, but autopsy studies conducted in Westchester County, New York, demonstrated that there is an ever-increasing tendency for women to die suddenly of coronary heart disease and stroke. Pathologist Dr. David M. Spain, who reported these studies, felt that the increased incidence of smoking among women was substantially responsible for their increase in sudden deaths.<sup>3</sup>

Another panelist in the symposium on hypertension mentioned above said, "Obesity is not nearly the risk factor in these patients that cigarette smoking is."<sup>4</sup> Smoking affects the pituitary gland and lessens the body's ability to excrete urine.<sup>5</sup> Thus, there can be a tendency toward hypertension from this mechanism also.

### **SEXUAL FUNCTION**

Did you know that loss of sexual function is more common among smokers than nonsmokers?<sup>6</sup> Some smokers become impotent long before they reach occupational retirement age. One report stated that some have become impotent as early as age thirty.

### **DEMENTING THE UNBORN**

It is not only the smoker who suffers damage when tobacco is burned. A study of 17,000 English babies revealed that children of mothers who smoked more than ten cigarettes per day were 40 percent more prone to postnatal convulsions. The children were followed for seven years. Some became severely afflicted with epilepsy.<sup>7</sup> In another study, unborn rats whose mothers

"smoked" suffered a 25 percent reduction of brain cells compared to control rat babies.<sup>8</sup>

### CADMIUM

Smoke inhaled by nonsmokers in the presence of smokers may contribute to hypertension: "Cadmium, a toxic metal found in tobacco smoke, represents a hazard to smokers and nonsmokers alike. . . . Investigators have found that smoke drifting from the burning end of cigarettes, cigars, or pipes (the sidestream), carries most of the cadmium from the tobacco. This may be harmful to anyone reached by the smoke. . . . Large doses of cadmium can cause acute poisoning: smaller doses have been implicated in *hypertension* and lung disorders."<sup>9</sup>

The research work of Dr. Henry Schroeder of Dartmouth University corroborates the foregoing. He has said: "Twenty-three million Americans suffer from hypertension and the evidence is clear that cadmium is a major factor in the disease."<sup>10</sup>

Studies of volunteers in England have shown that nonsmokers inhaling second-hand smoke in an unventilated room absorbed approximately the same amount of carbon monoxide as the smokers.<sup>11</sup>

### CIGARS VERSUS CIGARETTES

Some pipe and cigar smokers comfort themselves with the claim that they do not "inhale" and therefore do not absorb as much nicotine and other pollutants as cigarette smokers do. This belief is a dangerous fallacy. The more alkaline smoke of cigars is absorbed more readily through mucosal surfaces such as in the mouth whereas cigarette smoke, being more acid, needs a wider surface area such as is afforded in the lungs to be absorbed readily.<sup>12</sup> Either way, the smoker is

doomed to deleterious effects from the tobacco, and chewing would seem to offer no better hope.

### ADDICTED PHYSICIANS

Medicine has been declared by the courts not to be an "exact science." There are differences in individual bodies and their responses, and differences in temperaments and desires.

Even physicians differ in their opinions and observations. Some of these differences are honest differences of viewpoint, while others are due to a personal bias such as smoking doctors who are reluctant to urge their patients not to smoke as long as their own consultation rooms reek with the odor of stale tobacco.

Readers have a right to know that physicians who are addicted to smoking do not always give sound advice to their patients about the use of tobacco in high blood pressure. I well recall the comments of one eminent specialist in the field of hypertension who, being personally a tobacco addict, admitted freely that his patients received little enthusiastic urging to stop this dangerous habit.

Even if your own physician should be a tobacco addict and not among the more than 100,000 doctors who have wisely quit the drug, tobacco is still a dangerous drug for hypertensives. It is even dangerous to inhale the smoke second-hand from smokers in the same room. Tobacco constricts the peripheral blood vessels—the last thing in the world a hypertensive person needs. He already has too much peripheral resistance to blood flow in his vessels. So, if you have a blood pressure problem, you should know whether or not your doctor is "hooked" on tobacco, and consider his advice on this subject in the light of firmly established scientific facts.

## CHAPTER 18

### ***A Food Program for Hypertensives***

WE HAVE DISCUSSED VARIOUS FACTORS THAT influence, predispose, or cause hypertension, together with some suggestions and programs that aid in relieving various conditions. Now we shall discuss in more detail the proper food program for hypertensives.

All hypertensives should eat a sensible diet that is exceedingly low in saturated fats such as those found in beef, pork, mutton, milk, eggs, hardened vegetable fats, and all prepared foods made from hardened fats. Because this subject has been discussed in previous chapters, here we shall merely state that the "visible" fat in the food should be mostly confined to such vegetable oils as corn oil. Instead of butter the hypertensive should use a soft margarine—sparingly—for even these contain some hardened fats. Safflower oil, like corn oil, is high in polyunsaturates. Soy oil is acceptable, as is genuine olive oil. Vegetable oils should be the staple cooking oils. (I personally do not recommend cottonseed oil.)

#### **THE "PRUDENT DIET"**

Before we leave the discussion of fats, let us consider the efforts of eminent cardiologists to devise the so-called "prudent diet" to help reduce the tendency to heart disease, hypertension, and hyperlipidemia. There is much in this diet to commend it, but I must take

issue with its rather inadequate recommendation to reduce the average caloric fat content of the American diet from about 50 percent to 35 percent.<sup>1</sup> This is a step in the right direction, but it doesn't go far enough. An excessively liberal amount of fat (35 percent) in the diet may please our pampered palates, but it is not nearly as efficient in reducing blood fats and arterial hardening as is a diet restricted to approximately 20 percent fat.

"Cholesterol levels above 250 mg% more than double the risk of coronary disease, compared with 220 mg%. But an alarming proportion—a third of American men—is said to have serum cholesterol levels above 220."<sup>2</sup> However, the "prudent diet" also recommends that dietary cholesterol be reduced to 300 milligrams per day. I ask, is there anything truly prudent about taking in a third of a gram daily of the very substance that one is trying to get rid of, the very substance that is the chief villain in the arteriosclerosis story? I let the reader answer.

Visible fats by the year 1973 were consumed at the rate of fifty-three pounds per person. By 1980 this is expected to increase to sixty pounds. With such a picture before us it behooves us to *drastically* reduce our total fat intake and especially that of the saturated fats and those that contain cholesterol (the latter being exclusively from animal sources).

The eminent research and clinical physician Dr. Arthur Grollman of Dallas, Texas, has stated: "One half of all hypertensive patients over 50 have the most commonly observed systolic form; this reflects the arteriosclerotic process accompanying aging—a hemodynamic response to the loss of elasticity in the arteries."<sup>3</sup> This is a peripheral resistance to a free flow of blood.

The obvious comment to this profound assertion is that it is exceedingly imperative that this large group of

hypertensives make a *drastic* reduction in their saturated fat intake, something that cannot very well be accomplished while retaining a 35 percent caloric proportion of fat in the diet. It is a fact that to a great extent, even in patients over fifty, the hardening process in the arteries can be reversed if the individuals change their dietary habits so that their cholesterol levels are sharply reduced. *This* you have a right to know.

If you are going to do something definitive about reduction of blood cholesterol and fat, why not get on with the job and do it right? Why drag out the process and die by inches?

### DROP THAT SALT

May I, however, add a note of praise for the "prudent diet." It does recommend, as I have, that salt intake be reduced to five grams per day, subject, naturally, to climatic and occupational requirements for those perspiring and doing heavy work.<sup>4</sup>

### WARNING

Salt has been shown absolutely to produce permanent hypertension in rats. If this could also be proved for humans (it seems to be so), then warning labels should be placed on every package of salt sold—for example: "Warning! Medical facts indicate that the free use of salt may be detrimental to your health and cause high blood pressure." Eskimos, who use little salt, have little hypertension; Americans, who use salt more liberally, have more hypertension; and the northern island Japanese, who use even more salt, have an even higher incidence of hypertension.<sup>5</sup>

Not only should all hypertensives limit their salt intake, but even normal persons should use salt with great care. Many, even after putting little salt in the food while cooking, have learned to get along well

without using the salt shaker at the table at all. If food is carefully prepared and not overcooked, the natural flavors are retained and very little salt is needed to enhance taste.

Whether or not the personal physician who is managing your hypertensive therapy advises it, you should probably be on a much-reduced salt intake from the usual fifteen grams (half ounce) per day that is so common in the United States. Less than five grams (one teaspoonful) per day is a suitable amount, and many patients get along well on much less than this. The estimated daily sodium requirement is less than half of this. Only if you are sustaining excess salt loss —through heavy perspiration, for example—should you have a higher salt intake. Except for limited situations, however, do not discard all salt. You do need a little, but when you help yourself to much salt you inevitably help yourself to much sorrow. *This* you should know.

Many physicians do not restrict their hypertensive patients' salt intake, apparently assuming that they are unwilling or unable to manage their salt consumption. In most instances this is a fallacy. One prominent internist admitted in print that a *personal bias* kept him from urging salt restriction. But what patient wants treatment by personal bias? More and more physicians are now advising salt restriction.

One word of caution: Remember that commercially prepared foods tend to be heavily salted and that great care must be exercised in the use of restaurant foods, TV dinners, and so on. These, besides being highly salted, will in all likelihood contain substantial amounts of saturated fats, of both animal and vegetable origin.

#### CHEESE? BE CAREFUL

Cheese ingestion can be exceedingly dangerous

(even deadly) for hypertensives, especially if they are taking any of the "pargyline" drugs for their pressure. If you are on drug therapy, ask your physician about this. You have a right to know what drugs are being given to you and what their possible toxic effects might be. Ripened cheeses may in some instances contain enough tyramine to be dangerous even for hypertensives not using pargylines.

### DROP THOSE SWEETS

Hypertensives are statistically slightly more prone to diabetes and therefore should not overeat, especially refined sweets, including honey. Avoid sweet desserts. Eat a varied diet of the finest quality whenever possible, including a rich variety of fresh fruits and vegetables.

### MEALTIME HABITS

Hypertensives, unless overweight, should eat a substantial breakfast, a substantial noon meal, and a very light evening meal. After a light evening meal sleep will be more restful. At first this program, which will greatly benefit your health, may seem strange to you, but after a few days your biological clock will adjust to it. Eat no snacks between meals.

### THE EVENING MEAL

Because meals rich in fat tend to result in absorption of larger than usual globules of fat, which find their way into the circulation through the thoracic duct, and because this is especially dangerous in the evening, when the fat absorption takes place after the eater has retired, and because many heart attacks occur a few hours after retiring, and because hypertensives are more prone to coronary occlusion than normal persons, every hypertensive should give serious consideration to making his evening meal a very light, easily digestible one.

Besides, heavy evening meals tend to induce obesity, and obesity is something hypertensives just don't need. Hypertensives, many of whom are above normal weight, should avoid obesity like the plague, and if already obese they should reduce. A simple, do-it-yourself method for reducing is outlined in later chapters. Your circulatory system is already overloaded. Don't load it further with excess fatty tissue and excess blood vessel mileage.

## CHAPTER 19

### ***Vitamins and Minerals***

GUINEA PIGS AND MAN SHARE ONE UNIQUE characteristic: the inability to manufacture vitamin C in the body. There must be an external supply, a constant one.

Some startling research<sup>1</sup> has come out of Czechoslovakia that suggests that vitamin C facilitates the conversion in the liver of excess cholesterol to harmless bile acids, which can then be excreted into the bowel via the bile ducts. This discovery, if proven applicable to man, may be of value in treating hypercholesterolemia, one of the problems so often associated with hypertension. For this and the many other reasons why vitamin C is so important to human health, hypertensives should by all means assure themselves of an adequate supply of vitamin C.

Moreover, a biologist recently asserted that vitamin C "flushes cholesterol from the arteries and organs of the body."<sup>2</sup>

Animal studies at the University of Texas, Austin, have corroborated Dr. Linus Pauling's assertions that the common "standard" recommendations for vitamin C intake are much too low. The findings by Man-Li S. Yew interpolated to human standards suggest that children need 1,500 milligrams of vitamin C daily.<sup>8</sup> Without doubt adults need an even greater daily intake.

### TOBACCO AND VITAMIN C

There is a dietary reason why all hypertensives should exclude the use of tobacco: Smoking interferes with the proper utilization of vitamin C. Many years ago a Canadian investigator estimated that the smoking of just one cigarette "neutralized" the effect of the amount of vitamin C in one orange. Therefore, smokers tend to be deficient in vitamin C.

Smoking also interferes with the normal and healthful choice of foods. People become addicted not only to tobacco but to unhealthful foods as well. Smokers tend to select hot, spicy, devitalized foods in preference to the more nutritious foods. However, with self-control and will power, bad eating habits can be broken and a taste can be developed for the truly health-producing foods that will furnish an abundance of vitamins and minerals to the body.

### VITAMIN E

The obvious reason for avoiding large amounts of the saturated fats is that hypertension is almost always associated with a degree of arteriosclerosis. In order to facilitate the better utilization of the polyunsaturated fats (oils), vitamin E in the form of d-alpha tocopherol seems to be helpful. When used with caution, 400 to 800 milligrams per day seems to be a satisfactory dosage (see below). There is some evidence that arterial hardening may be lessened with the use of vita-

min E. However, this is a much disputed issue in conventional medical circles.

According to Dr. Evan Shute, the well-known Canadian authority, vitamin E is very beneficial for heart disease associated with arterial hardening, including hypertensive heart disease. Vitamin E appears to strengthen muscle function, increasing the efficiency of the heart output. Regarding hypertension, Dr. Shute wrote: "There is real need for alpha tocopherol here, of course, for 'strokes' lie around the corner. . . . Every hypertensive needs the protection that alpha tocopherol offers against strokes."<sup>4</sup>

Vitamin E reduces blood pressure in about one-third of patients, leaves the pressure unchanged in another third, tends to raise the pressure in the remaining third unless the dosages are started at a low level and carefully increased. Dr. Shute warns against self-adjustment of this dosage without the help of a physician.

In his book, *Your Heart and Vitamin E*, Dr. Shute maintains that vitamin E helps to lower peripheral resistance to blood flow in the smaller arteries, which, in hypertension, are in a state of spasm, as has been demonstrated in animal experiments. If this relaxing action on the arteries takes place promptly, it will occur in time to offset the increased heart action instituted by the vitamin and thus prevent a buildup of blood pressure. In any given case the program must be carefully regulated, especially in the beginning.

Because there is prejudice toward and lack of information about Dr. Shute's vitamin E concepts, do not be surprised if your cardiologist is not convinced of the value of vitamin E. It is interesting that in spite of this open prejudice, many physicians, when personally involved in coronary heart disease and similar problems, often use the Shute program of therapy for themselves.

There is little to lose by properly using vitamin E and very much to gain.

That vitamin E is beneficial in treating heart disease is shown by the fact that digitalis dosage can be reduced by one-half in some heart patients that regularly take vitamin E.

The opposition of organized medical authorities to vitamin therapy is not new. An editorial in the December 15, 1917, issue of the prestigious *Journal of the American Medical Association* tried to debunk the very idea that vitamin deficiencies existed. Allow me to quote a couple of brief passages:<sup>6</sup> "The lack of some necessary though undemonstrated food factor became a satisfying though vague explanation that is readily accepted by the uncritical." Further, the editorialist cited the belief that "there is evidence of a growing reaction against the acceptance of the vitamin deficiency hypothesis for all manner of disease syndromes." So, if medical men opposed progress more than fifty years ago, do not be surprised if some drag their feet in the 1970s. Doctors tend to be conservative, and sometimes this is laudable. So let us be charitable toward those who cannot seem to comprehend the importance of vitamin E.

#### OTHER VITAMINS

Unless contraindicated, hypertensives—especially if they must limit their food varieties because of allergies—should take daily multiple vitamin capsules to obtain enough of the various vitamins, especially B complex. So much of the prettily packaged food in supermarkets has been so altered and devitalized that supplements are often needful and helpful. However, do not use capsules that contain much vitamin D. In large doses this can cause internal damage.

Animals with an elevated blood cholesterol are benefitted by an adequate intake of vitamin A, and many

hypertensives are hypercholesterolemic.<sup>7</sup> But vitamin A, too, should be taken with care, as an overdose can be toxic.

## POTASSIUM

Because in experimental animals "an increase in the

**Table 1.**  
**Foods Rich in Potassium**

<i>Foods</i>	<i>Average Portion</i>	<i>Potassium (in mg.)</i>	<i>Calories</i>
<b>Fruits</b>			
Orange	1 medium	360	95
Grapefruit	1 cup	380	75
Banana	1 medium	630	130
Strawberries	1 cup	270	55
Avocado	one-half	380	275
Apricots	3 medium	500	55
Dates	1 cup	1,390	500
Watermelon	one-half slice	380	95
Cantaloupe	one-half melon	880	75
Raisins	1 cup	1,150	125
Prunes	4 large	240	90
Tomato	1 medium	340	30
<b>Juices</b>			
Orange	8-oz. glass	440	105
Grapefruit	8-oz. glass	370	130
Prune	8-oz. glass	620	170
Pineapple	8-oz. glass	340	120
<b>Vegetables</b>			
Artichoke	1 medium	210	30
Brussels sprouts	1 cup	300	35
Potato	3 oz.	400	80

intake of potassium ameliorates the hypertension"<sup>8</sup> and antihypertensive drugs often remove minerals as well as sodium from the tissues, hypertensives should assure themselves of an adequate intake of this potassium. Be sure to eat some foods rich in potassium—Table 1 lists some common potassium-rich foods. It is preferable to

obtain potassium from natural foods than from concentrated pills. Indeed, some of the latter have at times proved to be dangerous.

A serious result of the free use of certain drugs can be a potassium depletion known as hypokalemia, which can result in heart damage. Death from increased myocardial irritability has been reported. Hypokalemia is less likely to develop if the patient, by-passing highly refined "junk" foods, uses only foods of high quality.

#### **IRON, COPPER, AND OTHER MINERALS**

You may avoid anemia by choosing a food program that supplies an abundance of iron, copper, and other essential minerals. Although muscle meats are a rich source of iron, much of it is not in a readily available form so it is largely discharged with bowel wastes. By contrast, stone fruits (apricots, peaches, cherries) are among the best sources of available iron. Apricots are about the most superb blood builders known. (The exceptionally healthy and long-lived Hunza tribes of Asia use apricots as a staple food.) Some leafy vegetables and even ordinary beans are excellent sources of available iron as is unrefined wheat. Refined cereals and bread, however, have been robbed of their natural blood builders.

We in the 1970s have available many more highly nutritive natural foods than most people realize or use: fruits, grains, nuts, and vegetables—the protective, life-enhancing foods.

## CHAPTER 20

### **Watch Your Beverages**

WATER IS THE WORLD'S FINEST BEVERAGE. Try to drink at least eight glasses per day, especially if you are taking antihypertensive drugs.

Ordinarily domestic tap water is safe, but if it contains sodium levels above reasonable limits, obtain suitable bottled water that has been tested for sodium content as well as bacteriologic purity. If it is not available, use distilled water, which can be purchased in stores, or you can distill your own. Simple, stainless-steel, stove-top stills are available at a reasonable cost in stores.

#### **ALCOHOL**

Alcohol in all forms should be excluded from your program. Some physicians may say that a little wine or whisky is helpful, but *no* form of alcohol is beneficial. Why pickle your brain cells in alcohol? One does not need to be "dead drunk" and lying in the gutter in order to sustain brain cell damage from alcohol. Even small amounts cause damage.

#### **COFFEE AND TEA**

These are two stimulants that you do not need. Your circulatory system has too much spasm and peripheral resistance as it is without adding to its load. Although authorities disagree about coffee's direct effect on blood pressure, a recent medical news article states that a

combination of coffee with the stimulus for a too active community life increases one's stress and in turn can lead to high blood pressure.<sup>1</sup>

Moreover, caffeine (found in tea, coffee, and cola drinks) tends to increase fluid retention in the tissues.<sup>2</sup> Fluid retention is one of the problems encountered in hypertension. (Note also the same problem under glaucoma, cited below.)

Recent research has shown that some as yet unidentified substance in coffee that is not present in tea (both contain caffeine) tends to produce extrasystole heart beats (identified, by most patients, as "skipped" beats). Patients with persistent extrasystole problems are more prone to sudden cardiac deaths than are normal persons. The discovery of this fact was brought out in a Boston-based study that concluded that "people drinking more than five cups of coffee per day have about twice as great a risk of having an acute myocardial infarction as people drinking no coffee at all."<sup>3</sup> Coffee-break devotees take notice: coffee in large quantities can seriously damage the heart.

Since many chronic hypertensives have already sustained some potential damage to their hearts they would do well to consider leaving coffee out of their food program altogether. The deleterious effect described by the Boston researchers was not due to the caffeine primarily, so until decaffeinated coffees are subjected to further study the presence of the harmful factor in them has not as yet been ruled out. The Boston study also noted that coffee drinking elevates blood fats and cholesterol.

#### **GLAUCOMA**

Hypertension can cause blindness as a consequence of hemorrhage within the eye or within the brain. A recent study in England examined the possible relation-

ship between vascular hypertension and glaucoma (a condition in which the fluid pressure within the eye is increased and which may in turn lead to blindness). To the surprise of almost everyone, these investigators found that "Relatively high blood pressure tends to be associated with open angle glaucoma."<sup>4</sup>

Just how this relationship is mediated is not yet clear. The use of coffee might be a factor in some instances, for coffee causes fluid retention in many body tissues and does elevate the fluid pressure in the eye. Indeed, one of the common tests for borderline glaucoma is the "coffee-drinking test," in which the patient is instructed to drink coffee and the pressure is tested to see if it has risen to abnormal levels.

#### **DIABETES AND HYPERINSULINISM**

Scientists in Philadelphia have found that within thirty to ninety minutes after ingestion of coffee, significant elevations of blood sugar levels take place in certain diabetic subjects.<sup>5</sup> The effect of coffee in inducing hyperinsulinism is a well established fact, and this condition can eventually lead to diabetes. The tendency of diabetes to aggravate vascular hypertension is yet another reason why hypertensives should not use coffee or other caffeine-containing beverages.

More and more medical problems are being discovered to be associated with a free ingestion of coffee and its relatives. The popular "coffee break," while possibly lessening the monotony of certain occupations, is not lessening the medical problems of society. It is increasing them. The "break" should be renamed a "heart break." If you must have something that looks like coffee I suggest a cereal coffee such as Postum.

## CHAPTER 21

### ***A Fortuitous Discovery***

WE NOW BEGIN OUR DISCUSSION OF A PRECIPITATING cause of hypertension that—though an important one discovered many years ago and reported in medical books and journals—has largely been ignored, namely, a disorder of the body's immune system, revealing itself most prominently as an allergy to certain foods. If you were aware of this fact you are ahead of many of the "authorities" on blood pressure, for most current books and articles totally ignore the immunologic derangement factor. The announcement of this immunologic rediscovery and its management is one of the main purposes of this book.

As a matter of fact, except for salt intake, current medical literature seems to totally ignore the obvious fact that there are alimentary (digestive and intestinal) causes of hypertension. (Certain other substances, such as pollens, can also produce a rise in pressure.) It is common medical knowledge that there is much wrong with the eating practices of Americans and that vascular hypertension is increasing in epidemic proportions. Should it not be obvious that there may be some sort of connection between the two sets of facts, at least in some cases?

#### **THE CASE THAT BROUGHT REDISCOVERY**

Several years ago a fifty-nine-year-old white, professional man (a member of my own family) became



aware of recurring headaches. He also manifested excessive activity of the lower bowel. At first the cause of the headaches was not apparent, but readings showed the blood pressure to be elevated. Sometimes the pressure was only about 140 systolic; at other times it was as high as 180. Antihypertensive drugs promptly reduced the blood pressure, which rose again when the medication was stopped.

It became obvious to me that the intestinal hyperactivity was in some way connected with the elevated pressure. Therefore food experiments were begun. Before long the intestinal problem was traced to wheat, and when wheat was discontinued the blood pressure dropped and usually stayed down near the normal range of about 124/76, which it had previously held for many years. His allergy to wheat was so severe that even vitamin E capsules made from wheat germ produced a measurable rise in blood pressure.

An interesting observation was that the pressure elevation would come on about six hours after ingestion of the offending food and would last for about three days unless reduced before then with a drug. This naturally coincided with the time of transit of the allergens through the intestinal tract.

After repeated tests with wheat had proven that it was the offender, the patient one evening ate two slices of wheat bread with a little fruit, as an additional test. This was the crowning demonstration of all and the absolute proof of the diagnosis. At midnight he was awakened with a pounding headache, and his blood pressure had risen from normal in the evening to 230 systolic in about six hours. A quick administration of drugs rapidly lowered the blood pressure so as to avoid a massive brain hemorrhage.

Since that time repeated challenges with wheat and with rye, which contains a protein similar to wheat's,

have confirmed the cause of the pressure elevations. At the present time he can eat wheat only on a one-time basis every few weeks.

Another point of interest demonstrated repeatedly in this case is that evacuation of the bowel decreased the blood pressure, one time about 40 points (systolic) by simply taking a cleansing, clear-water enema. Another patient was able to obtain a drop of about 20 points in the diastolic pressure within about one hour after taking an enema. The drop was maintained for several hours. These findings again prove that in cases such as these the pressor substances that initiate the rise in blood pressure originate in the bowels, and when they are mechanically removed, the pressor effect is lost and the pressure will drop.

#### THE SEARCH BEGINS

Having independently discovered that allergy to food could raise the blood pressure, I set about to search the medical literature to determine if any previous cases had been reported. Most standard works were totally silent on the subject. But one fine older textbook on allergy did record a number of cases and provided clues for further sleuthing in the medical literature. To my amazement a number of cases had been reported many years ago, but medical science had passed them by as though they did not exist and the findings had been mostly ignored for about forty years.

## CHAPTER 22

### *A Study in Neglect*

MY SEARCH OF THE LITERATURE LED ME BACK to May 1930, when Dr. George Waldbott of Detroit, Michigan, published his classic paper concluding that "a certain number of cases of 'essential hypertension' are allergic in origin." He reported three cases in which markedly elevated pressures were, after appropriate dietary studies, greatly reduced simply by the elimination of the offending foods. In two of these cases he was able to reduce the pressure to essentially normal levels; in the third, least successful case, the patient was not able to fully eliminate all the offending substances.

All his patients had a family history of allergy, elevation of the eosinophile white cells of the blood, and positive skin tests to the offending substances. Among the many offenders in these three cases were milk, peas, beans, salmon, rice, cocoa, rabbit hair, glue, tomatoes, strawberries, fish, timothy, Russian thistle, cucumber, pumpkin, onion, and dog hair. Although foods were the most common offenders, epidermals and pollens also were shown to have contributed to the vascular hypertension.

Waldbott appears to have been the first investigator to prove that allergenic foods could produce vascular hypertension. He did make reference to some studies two years earlier in which Mosenthal noted that hypertension could be relieved in an individual if "certain starchy foods" were eliminated.

A totally independent discovery that allergy could cause hypertension was made by Dr. O. Liston, apparently a family physician practicing in a small Missouri community. In 1937 he reported<sup>2</sup> fifteen cases, five of them in detail, in which he had been able to identify the offending allergens by simple skin tests and had been able to obtain relief of the hypertension, usually within four days, by the simple expedient of removing the offending foods from the menu. Some of his cases who had carried systolic pressures as high as 220 or 250 responded to the food withdrawal therapy.

The most common offender in his series was pork and pork products, but wheat, chicken, garden greens, honey, and tobacco were also implicated. In certain of his cases various pollens were also found to contribute to the hypertension.

In view of my observation that an enema would lower pressure in some cases, I note the fact that Dr. Liston used Epsom salts purging to hasten the removal of allergens from the colon. In principle, his findings and mine agree on this point.

A few months later another article on the same subject appeared in the same journal.<sup>3</sup> Dr. L. P. Gay of St. Louis, Missouri, reported twenty-two cases of hypertension diagnosed as having been due to allergens. Through dietary means he was able to control the hypertension with a reduction of the pressures to normal in all but one case. The highest blood pressure treated was 220 systolic. "Wheat, pork, milk, potato, beef, and spinach in the order named were the allergens most frequently found as the actual factors in the maintenance of the hypertension." Coffee was also an allergen, but a rather infrequent one. In arriving at his diagnoses, Gay used elimination diets, food diaries, and skin tests.

He made an interesting observation in the case of

one woman who broke away from the allergen-free diet and then sustained a recurrence of elevated blood pressure: she had, while off the diet, developed additional food allergies that had to be managed before her pressure could again be controlled. This finding agrees with the common concept in allergy therapy that new allergens are acquired whenever the patient is careless in avoidance of known allergens.

Gay also noted one case in which paroxysmal tachycardia (intermittent heart rate elevations) was present together with the hypertension. This complicating condition was also controlled by the removal of food allergens, showing that indeed allergens do affect many tissues in the body, in this case the heart muscle tissue.

#### INDEPENDENT DISCOVERIES

Thus far we have noted the work of three observers who, independent of each other and probably unknown to each other, within a period of a few years discovered that vascular hypertension can be caused by allergy to food and some other substances. Further, these three men reported thirty-nine cases that were so diagnosed and proven, and that could be further proven by the fact that the hypertension was reduced to essentially normal levels simply by removing the offending allergens from the diet.

One would think that research so carefully done and documented by three fine observers and so dutifully reported in medical journals would have evoked an interest in medical circles, but their monumental work was all but forgotten. Vaughan and Black in their fine book *Practice of Allergy*<sup>4</sup> did refer to the work of Waldbott, Liston, and Gay. They also refer to another case of hypertension due to food allergy reported by Vaughan and Sullivan in 1937, bringing to forty the number of

recorded cases up to that time, yet hardly anyone seemed to apply this very valuable knowledge.

#### NO ONE WAS "LISTENING"

Forty cases were placed before the medical fraternity almost forty years ago and were ignored. I do not infer any *deliberate* neglect on the part of the medical establishment. These types of things happen from time to time.

In most allergic patients, blood pressure levels tend to be low so it is not surprising that few physicians associate allergy with hypertension. Also, the advent of effective antihypertensive drugs has made it so easy to treat the *symptom* of high blood pressure that its *cause* has not been eagerly sought. But because almost every drug carries some hazards to health, even to life itself in some instances, it becomes imperative that physicians not overlook such obvious remedies as merely eliminating a few allergenic foods. The nutritional risk is usually nil, but all drugs carry some risk.

Now, with the relationship of food allergy to hypertension once more discovered (independently) and buttressed by the monumental work of the pioneer investigators, and this time reported in a book directed specifically to the tens of millions of sufferers of hypertension, possibly—and hopefully—this subject will receive proper, albeit belated, consideration from doctors and patients alike.

#### THIS YOU SHOULD KNOW

Much definitive work yet remains to be done, but the concept that hypertension can be due to allergy to food (and other substances) in a fair proportion of cases is an established idea whose time has come—*again*. *This you should know*, and you as a citizen may be able to

enlist others in the interest of furthering the study of this simple approach to certain cases of hypertension.

American medical leaders consider the present crisis in hypertension to be a \$5 billion problem. They consider the total cardiovascular disability bill in the United States to be a staggering \$30.5 billion annually in direct and indirect costs. I cannot say that food allergy is the one most prevalent cause of vascular hypertension. But reputable medical researchers acknowledge that much is unknown as to its causation, and authorities like Best and Taylor in their book *The Physiological Basis of Medical Practice*<sup>5</sup> do not even so much as list the possibility that hypertension could be associated with allergy to foods. Moreover, recent published symposia on the cause and treatment of hypertension totally ignore the obvious facts about allergy. Is it not time for the facts to be set before the general public as well as before the medical fraternity?

The long-forgotten and neglected findings of Wald-bott, Liston, and Gay can no longer be "swept under the rug," as it were. *This you surely must know.*

## CHAPTER 23

### **Incontrovertible Historical Evidence**

BECAUSE THE ORIGINAL REPORTS OF WALD-bott, Liston, and Gay are not available to the general reader and because they contain information of great interest, I shall briefly summarize a few of their cases. For convenience, I have arbitrarily numbered the cases

but have not designated which case belonged to which observer.

### CASE 1

*A man, aged twenty-seven, blood pressure 168/118.* Tests incriminated strawberries and tomatoes. Elimination of those foods for two weeks lowered his pressure to 128/85. Six months later when he again ate the offending foods, his pressure became elevated to 158/98.

### CASE 2

*A woman, aged thirty, a sister of Case 1, pressure 182/119.* Tests incriminated milk, peas, beans, salmon, rice and cocoa. Nine days after elimination of the offending foods her blood pressure had fallen to 145/92, at which level it remained for about one year.

A few months later she presented herself with a recurrence of allergic symptoms and a blood pressure of 195/118. This time she evidenced allergy to rabbit, horse, and camel hair and glue. Investigation showed that these were dusts to which she was being exposed at her new place of employment. For financial reasons she was not able to give up her employment, but when she absented herself from work for two days her pressure dropped to 152/96. Unless she digressed from her restricted diet, even while continuing her unfavorable employment, her pressure stayed below 150 systolic.

### CASE 3

*A girl, aged fourteen, pressure 192/108.* Tests incriminated timothy, Russian thistle, cucumber, pumpkin, onion, and dog hair. She was instructed to avoid contact with the allergens. She did not return for about six months, at which time her pressure was 138/92.

**CASE 4**

*A widow, aged seventy years, who had suffered a stroke with paralysis a few days earlier and whose blood pressure was still 230/115. A purging with magnesium sulfate (epsom salts) dropped the pressure a few points. She was placed on a liquid diet. In four days her pressure had dropped to 140/80. On the tenth day she was allowed solid foods. She ate some fresh pork. Within four hours she became semiconscious and her pressure rose to 230/119.*

Purgung was again instituted to evacuate the bowels, and within twelve hours her pressure had dropped to 180/90. At the end of twenty-four hours it was 150/80. In a few days, with her pressure remaining constant, she was purposely tested with a quantity of roast pork taken on an empty stomach. Within six hours her pressure rose to 230/150. Purgung and other measures brought it to 140/80. (This was many years before the modern blood pressure drugs were available.) When pork was left out of her diet, the patient rapidly improved and the paralysis lessened so that, with assistance, she was able to walk again.

**CASE 5**

*Another widow, aged seventy years, suffering from chronic asthma, pressure 240/130. The principal allergens incriminated were chicken and honey. When she left these out of her menu her pressure was maintained at about 140/85. A challenge with a meal of stewed chicken raised her pressure to 250/130 and also precipitated a severe attack of asthma. This demonstration frightened the patient so that she would not allow her physician to make the same eating test with honey. She was satisfied with the results of the original skin tests.*

**CASE 6**

*A farmer, aged sixty-five, suffering from severe heart disease with angina pectoris, pressure 210/120. Being placed on a milk diet did not alter the symptoms of the blood pressure. As soon as milk was excluded his pressure dropped to 130/70, but the excruciatingly painful heart angina remained. Upon elimination of tobacco the angina ceased. After about ten days the patient imagined that the tobacco could not possibly have been a factor, but after smoking half of a cigar he was seized with a severe anginal pain. After recovery from this episode he tried smoking a pipe seven days later, and this too brought on a painful angina. He was convinced, and when last examined eight months after giving up both milk and tobacco, his pressure stood at 140/76 and all anginal symptoms had ceased.*

**CASE 7**

*A housewife, aged sixty-five, with history of hypertension for ten years, pressure 190/100. Removal of pork from the diet resulted in a pressure of 140/80. A test meal with pork raised the pressure to 180/110. Pork was again eliminated and the pressure dropped to 135/78, but in eight weeks she was back with a systolic pressure of 160. On inquiry it was found that she had been frying her eggs in lard drippings. When she discontinued this practice, her pressure dropped to, and remained under, 140/80.*

**CASE 8**

*A housewife, aged fifty-two, pressure 205/105. Tests incriminated wheat, milk, potato, lettuce, tomatoes, and spinach. After she excluded these foods for one month, her blood pressure fell to 155/75. Feathers and orris root were also eliminated and in another*

month she was free of symptoms and her pressure fell to 125/70 and remained at approximately that level.

Six years later she broke from her diet completely for six months and came into the physician's office with irregular heart action and a blood pressure of 210/105. By her indiscretion she had developed allergies to such additional foods as beef, corn, and pork. When she once more eliminated all her allergens, her pressure dropped within two weeks to 140/80, and ten days later the reading was 130/70, where it remained. The use of wheat and milk caused the heart rhythm irregularity to return and also raised her blood pressure 25 to 35 points.

This brief sample of the forty cases of hypertension reported in medical journals by the earlier investigators should convince any alert reader that indeed medical science has for about forty years overlooked one very real cause of hypertension and a cause of some serious heart rhythm irregularities. Without doubt many of your friends and family members may have actual hypertension, though they are not aware of the fact, and among these there are no doubt some whose pressure elevations are due to allergy to foods. From the historical cases cited, it should be clear that many patients can obtain dramatic relief by the simple expedient of eliminating the offending substances from their life pattern. But first the offenders must be identified. Succeeding chapters will hopefully assist the reader in this "detective work."

## CHAPTER 24

### ***Some Fundamental Facts***

BEFORE WE EXPLORE HYPERTENSION DUE TO food allergy, let us consider the mechanism of allergy in general. Allergic diseases are associated with a derangement of the immune mechanism of the human body. Briefly, this mechanism is one whereby the body cells can identify and react to foreign substances. Normally the body overcomes the foreign material without upsetting the delicate chemical balances and without itself being overcome by the foreign material. In allergy reactions the interaction between the intruder and the body produces unwanted and disagreeable results.

Scientists are increasingly finding that many serious diseases are associated with derangements in the immune mechanism. In some instances the body attacks its own tissues, producing such diseases as rheumatoid arthritis and lupus erythematosus.

Cancer is now coming to be more and more regarded as involving some aspect of the immune mechanism. Research in this area has largely been pursued by Dr. Robert A. Good, now of the Sloan-Kettering Institute for Cancer Research in New York City.

Cases of hypertension definitely involving the immune system of the body have been documented in preceding chapters. However, how widely these instances can be generalized to the population at large remains to be determined. Accurate percentage figures are not yet available.

### THE SHOCK ORGANS

Millions of Americans suffer from allergic manifestations, body responses to an offending substance called the allergen, which is most commonly, but not always, a protein substance. The allergen irritates a weak or susceptible portion or organ of the body, called the shock organ. In some individuals it may be the skin, and they break out with hives or other skin disorders. In others it may be the lungs, which manifest asthma or allergic bronchitis. If the nose is affected, hayfever with sneezing and obstruction becomes evident. Still others have intestinal complaints with flatulence and loose stools, or colitis. In vascular allergy the arteries may become inflamed, and in hypertension due to allergy the vessels become constricted or spastic. In both hypertensive persons and experimental animals arterial walls tend to be swollen, to be waterlogged, and to contain an excess of salt. The muscular layer also tends to be thickened.<sup>1</sup>

Dr. Marshall Mandell of Norwalk, Connecticut, maintains that there is such a thing as "cerebral allergy" in which the brain is the shock organ affected by the allergens. According to one report,<sup>2</sup> he asserts that some of these cases are "often mistakenly diagnosed as indications of psychiatric trouble." Allergic reactions impair the function of many other organ systems in the body, and surely there is no reason why the brain or the vascular system should be excluded. More and more physicians and their hypertensive patients need to become aware of the fact that allergy is a definitive cause of hypertension.

### ENZYMES

It has now been established that enzymatic abnormalities in metabolic enzyme systems are involved in

allergic states.<sup>8</sup> It is known that lack of digestive enzymes is more common in allergic individuals than in nonallergic persons. (This I have proven many times in my own chemistry laboratory, years ago.) And it is also an established fact, that in many allergics the stomach secretes less acid than is normal. Some of these patients notice an improvement in their allergy when they take supplementary acids to enhance protein digestion in the stomach.

The pancreas, which is the main gland supplying digestive enzymes to the intestines, also secretes enzymes into the bloodstream that may take care of undigested substances that in error have been absorbed into the bloodstream. When patients are in allergic states, blood enzymes tend to be at a lower level than normal, as can easily be shown by blood amylase tests. A low blood amylase level is presumptive evidence of low levels of other blood enzymes and also presumptive evidence of a low level of secretion of digestive enzymes into the intestinal tract. Thus, allergic individuals tend to be benefitted by the ingestion of supplementary enzymes, especially for the proteins.

Allergic individuals do not fully utilize their food, as was demonstrated many years ago in my own experiments with patients; it was shown that supplementing a normal and supposedly adequate diet with a hydrolyzed, balanced, amino acid preparation improved allergy symptoms.

We can clearly make a rather categorical statement that allergics tend to incompletely digest their food and that some of the incomplete digestion products are then absorbed. Being only partially hydrolyzed proteins, they can irritate and produce allergic manifestations in different parts of the body. Further, inefficiency in digestion presents an opportunity for the residue to undergo intestinal putrefactive processes with the forma-

tion of additional toxic products and allergens, which can, in turn, be absorbed and produce distant reactions.

### A LATENT PERIOD

Organs that must be reached by the blood circulation require, as in the case of hypertension due to food allergy, that the allergens first enter the digestive system, be partially digested, and finally be absorbed and transported by the bloodstream to the shock organ. Thus, there is a latent period from the time of food ingestion until a rise in pressure, which may vary from one or two hours to six hours.

### LOW PRESSURE FROM ALLERGY

In respiratory allergies the blood pressure tends more often to be low than high. Food allergy can also produce a low pressure, as is illustrated by the case of Mrs. L., age thirty-five, who for years during the summer months suffered from low pressure with fatigue and crankiness. At the same time she complained of leg and joint pains as well as of heavy mucus in her stools. Allergy skin tests showed that tomatoes were one of her worst allergies, and since she left them out of her diet, her fatigue and other symptoms have disappeared. Repeated feeding experiments with tomatoes have proven the relationship between her symptoms and the tomatoes, which she formerly ate heartily during the summer season.

### INCIDENCE OF FOOD ALLERGY

The true incidence is not known, but allergists are increasingly recognizing that the incidence of allergy to food seems to be rising. One specialist in allergy problems recently asserted, "Probably half of all allergic patients are suffering from food allergies involving the ear, nose and throat." In my own clinical practice large

numbers of extensive allergy studies showed numerous instances of food allergy. It is not an uncommon problem at all.

### **HIGH INCIDENCE OF ALLERGIES**

The incidence of known allergic diseases is exceedingly high, as is attested to by a study, over a period of two years, made of freshmen at Brown University, almost 35 percent of whom had some form of known allergy.<sup>5</sup> If to these one adds conditions not recognized by the students as allergies, the percentage would no doubt come close to 50 percent. Also, these were young persons; as age advances, the incidence of allergy increases.

To date no extensive studies have been undertaken to determine the percentage incidence of food allergy or its effect upon the blood pressure. Such studies are urgently needed, for at times foods can be a precipitating or aggravating cause (if not a primary cause) in both low blood pressure and hypertension.

## **CHAPTER 25**

### ***How Food Elevates Pressure***

IN THEIR TEXTBOOK ON ALLERGY, VAUGHAN AND Black state that the smooth-muscle cells of the blood vessels are the shock tissues affected in hypertension due to food allergens. My findings suggest that this is undoubtedly the case. It is not always the ingested allergen itself, however, that acts on the vessels, but rather an intermediate or degradation product of the allergenic protein.

As we have already pointed out, it takes about six hours after the ingestion of the allergenic food for the rise in blood pressure to become evident. Obviously, the substance that produces the actual reaction is no longer the natural protein per se but either a partially digested product or a degradation product that exerts a pressure (pressor) effect. This is evident from the time interval that transpires after ingestion. The fact that the pressor effect lasts for at least three days after ingesting a test meal indicates that it takes three days for the pressor substances to be fully expelled from the large bowel.

### TYRAMINE

More than forty years ago the blood pressure elevating effect of tyramine was well understood.<sup>1</sup> This chemical (as well as other toxic amines and ptomaines) is formed in the intestines by the putrefaction of proteins. (It is also found in a number of foods, most notably in ripened cheeses.) Just why the importance of tyramine formation in the intestines as a cause of hypertension has been so largely ignored for these many decades is a mystery. Amines as a class seem to exert pressor effects; witness the effect of catecholamine mentioned in an earlier chapter.

We have learned that certain antihypertensive drugs, such as the pargylines, inhibit such protective body enzymes as monoamino oxidases. Further, the drugs can, in the presence of tyramine (such as from certain cheeses), produce abrupt and fatal rises in blood pressure. The fact that tyramine alone, without the pargiline, can cause pressure elevation in suitable subjects suggests that possibly the protective monoamino oxidases in the body that normally would inactivate absorbed tyramine<sup>2</sup> may be lacking in the enzyme systems of some hypertensives, making them more susceptible to pressure elevation from the intestinal amines.

There can be little doubt that tyramine and similar pressor substances (formed in the intestines in the putrefaction of allergenic foods) are active agents in hypertension due to food allergy. These pressor agents probably are formed by putrefaction acting upon partially digested food proteins. Then these amines in turn are at least some of the agents that act upon the vascular system to raise blood pressure. Possibly nonputrefactive, partially hydrolyzed proteins may also be absorbed and act in the same manner on the smooth-muscle cells of the arteries. These hypotheses would be in agreement with the postulates set forth by Vaughan and Black. However, may I stress that much definitive research needs to be done in this greatly neglected field.

(Many years ago physicians spoke of this whole process as "autointoxication." In the light of current knowledge, perhaps in principle they were fairly close to the truth.)

#### **ADDITIONAL EVIDENCE**

Further evidence that pressor substances derived from food degradation in the bowel can raise blood pressure in allergic persons is the fact that if such persons take a liberal, cleansing, plain water enema the blood pressure sometimes drops many points. Pressure relief may be experienced within an hour. In one case a systolic pressure drop of forty points was attained by the use of an enema. In another patient the diastolic pressure dropped from 120 to 104 shortly after the enema and to 98 within an hour after the enema. At two hours it stood at 100. Liston obtained similar results from the use of a saline laxative.

Indeed, if a hypertensive person has any intestinal symptoms or distress at all, a cleansing enema can sometimes provide presumptive evidence of food allergy—that is, if the pressure is noticeably lowered. A

positive result is very suggestive, but a negative result still has not ruled out the possibility of food allergy. Whether the results are positive or negative in the enema test, further tests are needed to confirm or deny the diagnosis.

If the concept that intestinal absorption of bacterial putrefactive products can cause hypertensive disease is hard to believe, consider the following recent report:<sup>3</sup> Dr. M. J. Hill, a medical researcher from London, England, reported on his studies carried on for six years, which indicated that given the proper substrate of a high animal protein intake, intestinal bacteria of certain types could produce carcinogenic substances from intestinal contents, which in turn could cause cancer of the colon and also cancer of the breast. Apparently in the former instance the carcinogens acted locally on the colon lining and in the instance of the breast cancer absorption into the bloodstream would be required. One other well-known British cancer expert has postulated very similar mechanisms for the cause of colon cancer. It is a proven fact that, under certain circumstances, the intestinal bacteria can manufacture carcinogenic chemicals. I mention this new concept in cancer to show that there is indeed ample evidence that intestinal degradation products can produce disease, both locally and in distant organs. If so with cancer, why not with blood pressure? The evidence points strongly that this can be so in vascular hypertension, but we do need more statistical data as to percentage of incidence.

There is further evidence that blood pressure elevation can be a manifestation of an allergic response. In my office I have recorded the blood pressure of many patients before and after skin tests for allergens. If the patient is one who reacts strongly to allergenic substances, whether they be foods or pollens, I have often

found that either the systolic or the diastolic pressure, or both, has become elevated as much as ten to thirty points; the diastolic pressure is more commonly the one that becomes significantly elevated. A typical case is that of M.V., aged sixty-six, whose diastolic pressure rose twenty points within about forty-five minutes as he was being tested for pollen allergy by only ten intradermal injections.

These elevations during the tests could not possibly be caused by a tyramine production in the intestines, for the intestines are not involved in the tests. Nor could the elevations be associated with an elevation of blood sodium, for no salt or sodium is introduced into the system. The patient undergoes no exertion or stress while relaxing on a comfortable treatment table, so stress is not the cause of the pressure elevation. Therefore the allergens in reacting upon the skin must cause substances to be released and absorbed into the bloodstream that act upon the smaller arteries of the circulatory system, increasing the peripheral resistance and thus raising the blood pressure.

Accordingly, blood pressure elevation as a manifestation of allergy can be concluded to be produced through at least two mechanisms acting either singly or in concert. They are the formation of tyramine in the digestive tract and the direct action of the allergens, or intermediary substances, upon the peripheral blood vessels. There may be additional mechanisms that have not yet been fully delineated.

#### RICE AND ORANGE JUICE

More than twenty-five years ago a physician advocated a rice and orange juice diet for the treatment of high blood pressure. This diet was admirably successful in some cases. One of its biggest problems was that one could not survive on the program indefinitely. No salt

was allowed. (Some patients develop later heart damage from the total exclusion of salt.) Although some experts believe that the main virtue of the rice and juice diet was the salt exclusion, this assumption is not necessarily valid.

In hypertensives the sodium level of the blood is not usually significantly higher than in normotensive persons. The real cause of the rise in pressure is not to be found purely in the sodium ions but rather in the pressor responses in the smaller blood vessels. The sodium theory does not *per se* explain the vessel constriction. Getting rid of the allergens does get rid of one source of pressor substances whenever food allergy is the basic etiology.

In my experience, rice is not one of the commoner food allergy offenders; a few persons are allergic to oranges. Does it not therefore seem logical that *some* of the hypertensives who responded to the rice and juice diet may have received some relief from the exclusion of offending foods—allergens—to say nothing of having reduced intestinal putrefaction by use of the two simple foods? The rice and juice diet is not now in common vogue and the foregoing hypothesis has never been tested in relation to that diet; as of now it can be neither proved nor disproved, but without doubt the concept should prove valid in at least a few instances.

Much of the chronic disease in the respiratory system (lungs and sinuses) is associated with allergy. Much of the disease in the integumentary system (skin) is associated with allergy. Should it be surprising that the alimentary tract, which daily receives fresh supplies of foreign material from the outside, should be subject to and produce allergic diseases? Certainly not. And when so many diseases are associated with allergic or "immune" mechanisms, should it be thought so strange

that hypertension could sometimes be associated with an "immune" mechanism? Of course not.

Already it has been proven that immune reactions to food allergens and some pollens can precipitate elevation of blood pressure. We do not know what other immune reactions might be associated with hypertension. Without doubt we have barely scratched the surface in our understanding of intestinal allergy and its complications, one of which is vascular hypertension. Only time and definite research will tell. But in the meantime, while we wait for more research discoveries, let us not ignore the fact that hypertension can be caused by allergy to food and other substances—and that every case of hypertension not otherwise explainable should be tested for possible food allergy.

#### **THIS YOU SHOULD KNOW**

In order to open up this long-neglected field of food allergy as it relates etiologically to vascular hypertension, a later chapter will describe a successful method for self-analysis to detect food allergy, so that the hypertensive patient, if found to be allergic to specific foods, will be able to manage his own food program with success.

## **CHAPTER 26**

### ***Another Viewpoint***

A FEW YEARS AGO DR. ARTHUR COCA, ONE OF America's foremost immunologists, independently discovered that food allergy could cause vascular hyper-

tension. In his book, Coca cites the typical case of a sixty-year-old woman whose pressure of 198/120 was reduced to 112/78 in just sixteen days by the exclusion of the offending foods. Repeated challenges with the offending foods raised the pressure, but it quickly came down again when the offenders were excluded. He reported many similar cases.

Coca set forth the hypothesis that the allergens produce edema in the kidneys, hampering the blood flow, and that this liberates angiotonin, which in turn raises the blood pressure.<sup>1</sup> This theory did not catch on widely in medical circles and, like the earlier work of Waldbott, Coca's discovery that food allergy could cause hypertension has not received the attention it deserves from medical circles.

Whether the angiotonin hypothesis is more valid than the current hypothesis of intestinal toxins and amines (such as tyramine) acting directly on the peripheral vessels and thus raising pressures cannot be stated absolutely at this time. There has been no definitive research to compare the two concepts. Possibly both hypothetical mechanisms play a part.

However, amines such as tyramine do exert a pressor effect upon the peripheral vessels to raise blood pressure. This has been an incontrovertible, established fact for well over forty years. *This you should know.*

By an application of the knowledge concerning allergy as a cause of hypertension, a fact that has largely slumbered on the shelves of medical libraries for almost forty years, help is now available for hypertensive sufferers with food allergy. *This fact, too, you have a right to know.*

## CHAPTER 27

### ***Identifying the Offender***

HOW CAN A HYPERTENSIVE KNOW IF FOODS elevate his blood pressure? What are the signs? If you know that certain foods give you gastrointestinal distress or otherwise make you indisposed, eliminate them from your diet completely for at least four days. If your blood pressure falls as a result, you may have already found *some* of the culprit foods. Leave these questionable foods off your menu until you decide to later test them individually by reintroducing them one at a time into your menu.

Another aid to an early and quick diagnosis is to take a large enema of clear water, to thoroughly cleanse the entire colon. This rids the body of putrefactive material. Check your pressure before and after the procedure, taking several readings in the four hours that follow. If you detect a substantial drop, you can be almost certain that absorption of food products from the intestine is involved in your hypertension.

If neither of the above methods is feasible or does not give definitive results, you should next consider having a physician knowledgeable about allergy perform scratch tests on your skin using the common foods. This would involve about 100 different foods. Do not settle for a brief test of a couple of dozen foods. The ones left out in such an inadequate test could be just the ones that you are sensitive to.

## VALUE OF FOOD TESTS

Skin tests for foods are significant if they are positive; such reactions are reasonably dependable. However, a negative test does not prove that you do not have a food allergy. (In such cases the analytical program at home by yourself, at no cost, described in the following chapter, may be the next step for you.) The eating test is, after all, the final arbiter of truth as to food allergy. If you wish to save expense, you can skip the skin tests altogether. But having the skin tests is a time saver and may prove helpful in finding the offenders.

## POSITIVE TESTS

Whenever you get a positive test for allergy to any food, eliminate that food at once and after a suitable wait of a week or two, test it by introducing it again into your food program in a generous helping at one meal. Test only one suspected food at any one meal or on any one day. Monitor the pulse and blood pressure for several hours before the meal and hourly after the meal. Significant rises in pressure or in pulse rate suggest allergy to that food.

## EPIDERMAL ANTIGENS

If no offenders have been found among the foods, you should go to an allergist and be tested for reactions to several dozen "epidermal" antigens, including various animal danders and furs and tobacco. If tests reveal you to be allergic to certain animal danders, eliminate contact with the offenders. If you are allergic to tobacco, eliminate its use and avoid any indirect contact with it. Family members and visitors should *absolutely* stop smoking in your home and in your presence.

**POLLENs AND MOLDS**

If still no offenders are found, then you should proceed with a few dozen pollen tests for weeds, trees, and grasses that are indigenous to your locality. If you are allergic to any of them, as much as possible avoid contact with them.

It would appear that pollen allergy is not quite as frequently the cause of hypertension as is allergy to foods. Nevertheless, it does occur. Some of the earlier investigators noted allergy to various weeds as a cause. I well recall one of my own patients whose blood pressure at the beginning of a test session for pollen allergy was 140/70, but which, as a result of a number of strongly positive skin reactions to several pollens, rose to 170/80 by the end of the testing session. Upon inquiry I found that she had indeed in the past been diagnosed as being hypertensive and had received drug treatment for her condition.

Therefore, as we have stated, hypertensives in whom the causative factors are not readily apparent should receive skin tests for pollen and epidermal allergy as well as for food allergy. Blood pressure readings should be taken before and after the testing session.

**CHAPTER 28*****The Analytical Program***

MANY YEARS AGO I DEVELOPED AN ANALYTICAL program for identifying foods that might produce allergy. The program is so simple that you as an average

person can conduct the testing in your own home. All it requires is a little diligence and care.

Most conventional diets for identifying allergenic foods begin by guessing that this or that food is the offender, eliminating it, and then at a later time challenging the body responses by its reintroduction into the diet program.

By contrast, in my analytical program we begin at the very beginning by eliminating all foods except one and then building upward with additions, all the while carefully observing whether signs of allergy can be noted. This method is much more thorough and much more reliable than the common elimination diets. It is admirably suited to detect foods that might be elevating blood pressure.

### THE TEST

Since rice allergy is relatively uncommon, our program usually begins with rice—rice only—for a day or two. While this menu admittedly is rather monotonous, it does give the bowel system time to expel any leftover allergenic foods eaten during the previous several days. A plain water enema will also assist in this expulsion. You may use either brown or white rice, but do *not* use any of the precooked rices that contain additives. (If a rice allergy is suspected, begin with some other simple food such as oatmeal. Then rice can be added at a later time as a test.)

In the common elimination diets the suspected foods are added early in the program. In our program we leave the *prime* suspects until last. To the rice diet we next add some simple items like apple juice and applesauce. Then gradually add squash, peas, other grains (leave wheat to last), and various mild fruits. (Citrus fruits, tomatoes, and melons should *not* be tried early.) Coconut rarely causes allergy. It may be added early in

the test program. Add no more than one food at any one meal. Add no more than two foods in any one day. Keep an accurate diary of each day and each meal.

Salt may be used sparingly, but use the same exact amount each day. Do not vary it, as the hypertensive effect of the salt could upset the test. White *cane* sugar may temporarily be used after the first day to make the food more palatable and to increase the caloric intake. Do *not* use beet sugar. Sugar beet allergy is too common. Leave out all other seasonings and sauces and do not add margarine at least until the second week. Use no butter until you add milk products. For those readers who eat meats, mutton and lamb are much less likely to produce allergic reactions than are beef or pork products. Swine flesh and swine products are among the worst allergy offenders. They should be among the last foods tested.

The "big five" in food allergy are milk,\* wheat, corn, chocolate,† and eggs. Seafood, pork, and some nuts (notably walnuts) follow closely behind. Peanuts and tomatoes are fairly high on the list of offenders.

One reason why milk allergy is so common and develops so early in life is that the protein of cow's milk is about twice as concentrated as that in human milk

\*Without doubt, the incidence of food allergy could be materially lessened if mothers would not be in such a hurry to start their babies on nonmaternal foods. According to one prominent pediatrician, "An infant has a better chance of escaping childhood allergies if his diet excludes cow's milk, eggs, and true cereal grains during the crucial first six months of life" (*Medical World News*, January 14, 1966).

†Several years ago a study emanating from Washington, D.C. set forth good evidence that much of what is considered to be chocolate allergy is in reality cockroach allergy, since cocoa beans and chocolate products are so often contaminated with cockroach carcasses and the insects' excreta. Not a pleasant thought, but very true.

(besides being a protein foreign to humans). Thus, a baby is fed protein from an animal that is supposed to mature in two years instead of a body that is supposed to mature in twenty years. "If a man weighing 150 pounds drank as much milk per pound of body weight as many infants, he would drink 2 gallons a day."<sup>1</sup> It becomes clear that an infant placed on cow's milk at an early age receives enormous daily doses of a protein foreign to his species. This is another reason why milk allergy is so prevalent.

Other than leaving the more likely allergens until last, the exact order of adding food is left to the judgment of the patient. Our purpose in this chapter has been to merely outline the principles of the analytical program and permit you to attend to the details.

As soon as any reactions occur that make you suspect a certain food as an allergic factor, exclude that food, to be retested at a later time, after the basic test has been completed.

If after the test program you choose prepared and packaged foods, be sure to always read the labels carefully to note the ingredients. It is better to avoid the complicated foods during the testing period, for if reactions occur you will not know which factor in the food was the offending one.

#### **EVIDENCES OF FOOD ALLERGY**

Since you are primarily testing yourself for foods that produce high blood pressure, determine your blood pressure readings before meals and also hourly after meals. Keep an accurate record as to figures and time. Any elevations of pressure should be noted and tentatively related to specific foods. Later these foods will be retested.

Another evidence of food allergy is excessive flatulence and bowel overactivity, which would not appear

until about three to eight hours after the offending food was eaten. A rise in pulse rate may be an evidence of allergy, so always record your pulse rate before meals and within an hour after completion of the meal. Still other symptoms might be abdominal pain, nausea, headache, nasal congestion, wheezing, and skin eruptions. Sores in the mouth and sores or cracks inside the nostrils can be significant indications of allergy to specific foods, according to my clinical observations. Leg and joint pains may indicate food allergy, particularly in younger individuals, as may excess fatigue of unexplained origin. Whatever the symptoms you experience, write down the symptoms, the date, the time, and the relation to your menu.

If possible, omit antihypertensive drugs during this test period, but do not run the risk of an uncontrolled high pressure. Far better to continue on the drugs if needed and do the best that you can with the food test program.

#### **CONTINUING TESTING**

Having concluded the primary tests with all the foods that you ordinarily eat, you now review your record. If you have found, by the analytical program or by other tests, one or more foods to which you appear to be allergic, rigidly exclude such foods from your diet, at least until your blood pressure has become stabilized at a satisfactorily low level.

Then you are prepared to reintroduce some of your suspected foods. After you have had no contact with the offenders for a few weeks, at one meal cautiously eat one suspected food—only in a moderate quantity. (Any suspected—even slightly suspicious—foods should be retested individually while you subsist on those other foods that have proven themselves to be nonallergenic.) On any one day retest no more than one offending food.

Observe whether any symptoms of intestinal distress develop. Also note any elevations in blood pressure or pulse rate. Record all findings. If suggestive evidences of allergy are noted, wait about one week before trying that particular food again.

Those foods that repeatedly bring on allergic symptoms should be left out of your menu. After leaving them out for a few weeks you may wish to test them once again, on an individual basis, to see if you can possibly tolerate them once in a while or if you must leave them entirely alone.

It appears that in relatively mild food allergies offenders may be repeated in cycles of five to seven days. In severe degrees of allergy you may have to wait one to three months between uses of the offenders.

If you are fortunate, you may after a few months be able to eat some of your allergenic foods oftener than once each week. Eventually you may even be able to eat more than one allergen at a given meal. The human body can, in some cases, make a certain degree of "recovery" relative to allergy to offending foods.

## OVEREATING

Studies in infants have shown that "once an individual has become allergic to one substance, allergy to other antigens develops more readily."<sup>22</sup> This is especially true of food allergies and is not necessarily limited to the experience of infants. Persons with food allergy should *never* eat large quantities of any kind of food so that the digestive processes become overtaxed. Such persons will sustain fewer allergic reactions and probably develop fewer new allergies if they avoid all forms of overeating.

Many years ago I was able to demonstrate that a high sugar intake could contribute toward aggravation of allergy, and since food allergy is a factor in some

cases of high blood pressure, hypertensives should use sugar with great care.

Also, persons allergic to foods would do well to lie down for ten to twenty minutes after each meal and apply heat from a hot water bottle over the stomach to aid digestion. For all types of allergies adequate rest is very important, including adequate rest of the digestive organs. Allergies do much better if the evening meal is light, lessening the load on the digestive organs during the night.

## CHAPTER 29

### **An Idea Has Come—Again**

ABOUT FORTY YEARS AGO, WHEN WALDBOTT and Gay and Liston presented the idea that vascular hypertension could be due to food allergy, it was indeed an idea whose time had come. But little attention was paid to it. In 1948 Vaughan and Black called attention to the same idea, and in 1956 Coca spelled it out once more. As before, little attention was paid to it by medical practitioners.

Now the idea has come again. With the rapidly rising incidence of vascular hypertension, hopefully *now* the idea will take firmer root and remain to be a blessing to those who need it.

And the need is obvious. For example, the April 29, 1974, issue of the *Journal of the American Medical Association* carried a query from a Midwestern physician requesting counsel concerning a sixty-seven-year-old woman who for thirty years has had repeated episodes

of flushed face, rapid heartbeat, sudden elevations of "blood pressure to a peak of 260/160," severe chest pains, *and also diarrhea*. The patient had received many kinds of drugs and had been examined by specialists, yet no relief had been found.

The AMA consultant in reply suggested a number of additional tests and also trials of additional drugs. However, no suggestion was made that possibly this could be a case of food allergy, even though the patient had one of the cardinal evidences of food allergy, namely diarrhea, with each attack of hypertension. This type of patient is illustrative of those who would benefit by an investigation for possible food allergy.

Admittedly, much research is needed to ascertain the incidence of food allergy as a cause of hypertension. Hopefully, scientists equipped to make these determinations will soon undertake this work. In the meantime, at least some sufferers can change their modes of living to reduce and lessen the need for drugs, which should be avoided if simpler, safer means can produce relief.

Not all persons with food allergy sustain elevation of blood pressure. There may be hereditary or genetic factors that predispose some persons to a rise in blood pressure when food allergens are consumed.

"An idea whose time has come" has come again. May the medical fraternity exert efforts to apply it, equal to the importance of the idea, so that at least some of the tens of millions of hypertensives will receive the benefit they deserve. The time is now. *This you should know.*

## CHAPTER 30

### ***Drop Those Pounds***

IN A LARGE PROPORTION OF CASES, HYPERTENSION is closely associated with that very common and much misunderstood American malady, obesity. They so often coexist that they might be called "fraternal twins." Since treatment of hypertension depends heavily on proper relief of the obesity, several chapters in this book will be devoted to the problems of the overweight.

The large number of "programs" for the treatment of obesity are evidence that most of them are not successful. The only successful program is one that recognizes that the living habits that brought on the state of obesity must be changed to a habit pattern that restores bodily function to normal. To this end we shall deal with obesity in a simple yet practical way that can give reasonable success to persons who wish to normalize their lives and figures.

Obese readers who do not yet suffer from vascular hypertension should find this volume of great interest as they seek to prevent the development of hypertension, for by the law of averages they are well on their way to developing this important and rather deadly complication of their obesity. So, if some of this information does not seem to apply directly to your problem right now, study it anyway. It may save you from a future crippling disease or from a premature death.

Excess poundage makes a person much more susceptible not only to hypertension but to heart disease,

diabetes and a dozen other serious diseases. What shall the obese hypertensive person do about his excess weight. The obvious answer is that he must shave off those surplus pounds. If he changes his habits, his hyperlipidemia may be highly responsive to weight reduction.

### **WHO IS OBESE?**

The age-height-weight table (Table 2) will help the reader determine whether or not he is obese. Generally, the normal weight for age twenty-five (maturity) should be the normal weight for the rest of your life. A very simple "do-it-yourself" test is to pinch the "spare-tire" layer of fat along the *side* of your waist. If the double layer of fat and skin exceeds one inch, then you are definitely overweight.

### **HOW FAST SHOULD WEIGHT BE LOST?**

It is not wise to lose weight too rapidly. One or two pounds' loss per week is a safe rate. If the loss is gradual enough there will be less residual bagginess, for the skin will shrink at a more normal rate.

### **TWO BASIC PRINCIPLES**

How are these excess pounds to be shaved off? For those who honestly want to lose weight, the program can be relatively simple. Diet, with exercise, has always been, and still is, the main treatment of obesity.

### **BECOME A CANNIBAL**

You became fat by eating. You reduce the same way—by eating. To gain, you ate only food from the outside. To reduce, you cut down on your outside intake and "eat" yourself up from the inside—in other words, burn up and use up your own surplus fat.

**Table 2.**  
**Age-Height-Weight**

**WEIGHT IN POUNDS ACCORDING TO FRAME**  
(in indoor clothing)

**DESIRABLE WEIGHTS FOR MEN**  
of ages 25 and over

**HEIGHT (with shoes on, 1-inch heels)**

<i>Feet</i>	<i>Inches</i>	<i>Small Frame</i>	<i>Medium Frame</i>	<i>Large Frame</i>
5	2	112-120	118-129	126-141
5	3	115-123	121-133	129-144
5	4	118-126	124-136	132-148
5	5	121-129	127-139	135-152
5	6	124-133	130-143	138-156
5	7	128-137	134-147	142-161
5	8	132-141	138-152	147-166
5	9	136-145	142-156	151-170
5	10	140-150	146-160	155-174
5	11	144-154	150-165	159-179
6	0	148-158	154-170	164-184
6	1	152-162	158-175	168-189
6	2	156-167	162-180	173-194
6	3	160-171	167-185	178-199
6	4	164-175	172-190	182-204

**DESIRABLE WEIGHTS FOR WOMEN**  
of ages 25 and over

**HEIGHT (with shoes on, 2-inch heels)**

<i>Feet</i>	<i>Inches</i>	<i>Small Frame</i>	<i>Medium Frame</i>	<i>Large Frame</i>
4	10	92-98	96-107	104-119
4	11	94-101	98-110	106-122
5	0	96-104	101-113	109-125
5	1	99-107	104-116	112-128
5	2	102-110	107-119	115-131
5	3	105-113	110-122	118-134
5	4	108-116	113-126	121-138
5	5	111-119	116-130	125-142
5	6	114-123	120-135	129-146
5	7	118-127	124-139	133-150
5	8	122-131	128-143	137-154
5	9	126-135	132-147	141-158
5	10	130-140	136-151	145-163
5	11	134-144	140-155	149-168
6	0	138-148	144-159	153-173

For girls between 18 and 25, subtract 1 pound for each year under 25.

**REDUCE CALORIE INTAKE**

The simplest way to reduce weight is to cut down on total calorie intake. In every pound of stored fat there are about 3,500 calories. To lose those two pounds per week you will need to reduce your weekly calories eaten by 7,000, which means to leave off about 1,000 calories per day.

No matter if some may say that "calories do not count"—they do count, but it is not necessary for you to sit around counting them to remove your excess weight effectively. Begin your program by reducing your usual food quantity by about one-fourth. To be maximally effective, in some instances this quantity reduction may need to be adjusted upward or downward.

To achieve this reduction in calories, begin by skipping the evening meal entirely or at least reducing it to a very light caloric content. It is a proven fact that evening meals deposit more fat than do the other two meals.

**NEXT**

Avoid emotional conflicts that unbalance your dietary habits and make you want to eat when you ought to be abstaining. And whatever you do, eat *nothing*—absolutely nothing—between meals. Take in nothing but water between meals—NOTHING! Some reducing diets recommend snacks between meals. Shun this type of practice as a self-defeating adjunct to a reducing program.

**THEN**

In your other two meals cut down drastically on visible fats. Avoid all animal fats and all saturated vegetable fats. A basic program for most persons who wish to reduce is best carried on with a diet that completely

excludes foods of animal origin, for most foods of this class contain some saturated fats. The vast majority of diet programs for reducing do include animal protein foods, but a steak or chop, no matter how supposedly lean, contains much fat between the muscle bundles. A reducing program based on such foods is prone to failure, and if it is for a time seemingly successful to a degree, it has built into it an inherent relapse rate that is too high.

#### A NATURAL DIET PROGRAM

From the many facts presented, let us consider the most ideal diet for health preservation, especially for hypertensives and the obese. We should choose one that is low in sodium but rich in trace minerals and is also rich in vitamins and in excellent protein. It should contain adequate fiber and bulk to assure a healthy digestive tract. It should be free from cholesterol and low in saturated fats. It should favor longevity and cardiovascular health and also help prevent and cure obesity. It should also provide very tasty menus.

Where else does one find such health benefits but in a diet composed largely of fruits, grains, nuts, other seeds, and vegetables? An interesting fact about these natural foods is that they resemble very closely the bill of fare prescribed for man in Eden. Can any man in the 1970s invent a better diet that will tend to keep arteries supple and to normalize blood pressure and body weight? The obvious answer is that no man can invent a better diet than the natural one. A food program that is for the most part totally devoid of animal foods is not only adequate and nourishing but truly healthful. That being the case, why not accept the most ideal program in this world and take a long, long step toward independence from obesity, hypertension, and heart dis-

ease? Why settle for disease when health is readily available?\*

#### A CLEARER VIEW OF THE PROBLEM

Some of the more enlightened medical centers in the United States (such as Stanford University Hospital) are *beginning* to take a clearer view of the problem, for they now recommend that patients "be urged to *limit* their intake of eggs, bacon, sausage, luncheon meats, and cheese" in treating heart disease.<sup>1</sup> But, please note, the marbleized beef steaks are not on the "limited" list and these more enlightened programs do not go far enough to *eliminate* the saturated fats. They only "limit" them. This is about as far as most reducing diets dare to go, which is one reason so many of them fail to be a permanent success. By contrast, our program avoids the "built-in" relapse features that are part of the common reducing diets.

These facts you should know. You may prefer to continue the use of animal foods, but in so doing you will, by the law of averages, also partake of some of the risks inherent in the use of those foods. In presenting the facts I have simply honored your right to know.

#### POLYUNSATURATES

Do include some polyunsaturated fats in your diet. This is a must. Take two teaspoonfuls of a vegetable oil, such as corn oil (but not cottonseed oil) daily, to assist the body in "burning" up the surplus tissue fats.

Great quantities of polyunsaturated fats are not ad-

\*Our book, *Rx RECIPES*, containing hundreds of tasty formulas and recipes, is based on just such a diet. It has benefitted many thousands of users. The book is priced at \$4.00 per copy, postpaid, and may be secured from Hope Publications, PO Box 330, Hope, Idaho 83836.

visible. A few years ago an American scientist demonstrated that vitamin E deficiency could be produced by feeding a diet unusually rich in polyunsaturated fats.<sup>2</sup> Users of large amounts of such fats should take adequate amounts of vitamin E. So do not forget to take some vitamin E and vitamin A to help in utilization of the natural fats. Vitamin E may also slow down the healing of wounds if taken in large amounts, but if vitamin A is taken at the same time, this adverse effect of the E is counterbalanced.<sup>3</sup>

#### TO BE AVOIDED

Avoid refined starches and all other refined foods. Banish most of the common desserts from your menu. The natural fruits are far better desserts for you than the common fluffy sweets.

#### POTATOES

Contrary to popular belief, potatoes are an acceptable item in reducing programs. Pound for pound they furnish one-third less calories than do wheat products. They also provide valuable protein.

#### PROTEINS, VITAMINS AND MINERALS

In your limited diet, make certain that adequate proteins, vitamins, and minerals are supplied. If necessary, take supplements or concentrates of vitamins and minerals. Fifty to seventy grams of high-quality protein per day should be more than ample in the average case.\*

#### POTASSIUM

During diets for obesity, care must be taken that the

\*If you are uncertain as to how much protein there is in any given portion of food, may I suggest that the generous food tables in our book, *Rx RECIPES* (cited earlier), help you.

important mineral potassium is adequately supplied in the diet. Studies of obese subjects who fasted for a period showed that if potassium intake was adequate it would improve the person's tolerance for carbohydrates, which tolerance is usually damaged during fasting.<sup>4</sup> Being on a reducing diet is a form of limited fasting, so you should be sure to include some potassium-rich foods in your menu. The reader will find Table 1 in Chapter 19 a handy list of such foods.

### **CHILDREN**

Obese children should not be placed on an extremely low-calorie diet. Remember, they are growing and have to build new tissues. Better to reduce their caloric intake very cautiously and to get them to exercise more. Most of them need to cut out sweets and fats found in desserts and snacks and then to get out and really exercise.

Likewise, pregnant women should reduce with caution. They have another life to feed within. This developing body should not be starved.

### **EXERCISE**

Next to diet, exercise is the most important method of weight reduction. We have already noted that in order to lose two pounds per week one has to reduce the daily food intake by 1,000 calories. Would you like to be able to still enjoy some of those 1,000 tasty calories as food and still lose the two pounds? Then increase your exercise. Enter upon a good exercise program that will burn up the excess calories stored in your tissues. However, the problem is that many Americans detest exercise more than they detest obesity.

Some of the "labor-saving" devices in the United States should in reality be called "exercise-preventing" devices or "obesity-producing" devices. Avoid them if they contribute to your obesity.

Exercise should preferably be out-of-doors and useful—constructive, such as gardening. (But even indoor setting-up exercises may have some value—especially in inclement weather.) However, as we have already stressed, walking is one of the finest forms of exercise for anyone. A three- to four-hour walk can account for 30 percent of the caloric energy output. (Temporarily, exercise will increase appetite and food intake, but a little will power can control this urge and weight reduction will proceed on schedule.)

### TRY IT!

Diminish your calories and increase your exercise. Try it! And if you faithfully follow those two principles you should soon be well along the way toward a normal weight. The percentage of persons who cannot lose weight through these principles is exceedingly small. You have just finished reading a reducing program that works. *This* you should know.

## CHAPTER 31

### ***Mind Over Matter***

ONE REASON WHY DOCTORS DO SO LITTLE ABOUT their hypertensive patients' obesity is that trying to help them to reduce is too often an exercise in sheer frustration. Few patients are willing to discipline themselves so as to improve their health and lessen their mortality by reducing their weight.

Many bariatricians (reducing specialists) consider that

obesity is not curable but only treatable. They feel that at best their success rates will be low with average patients because so few persons are truly willing to modify established eating and living habits sufficiently to effect permanent loss of weight. Specialists fear that the only real answer to obesity is prevention, starting at birth. This jaundiced outlook need not be harbored if people would be willing to follow the two simple principles of proper diet and adequate exercise.

### FUNDAMENTAL PRINCIPLES

A very fine brochure advocating treatment of obesity stated: "Obesity, like diabetes, is never cured—only controlled." Unfortunately, this is true in some cases, primarily because the patient either is not taught proper dietary health principles or refuses to recognize the need for learning such principles and abiding by them. But do not allow assertions such as these to discourage you.

### ONCE GAINED—NEVER LOST?

There seems to be a feeling among some obese persons that a pound of fat once gained can never be lost—permanently. This need not be so. It need not be true in your case. If there is a *genuine* will to normalize weight, it can be done.

### MOTIVATION

One of the problems with those who seemingly can not lose weight is that they often lack a genuine motivation to reduce. Oh, yes, they have a motivation of sorts, but not one strong enough to be effective. If such is your problem, let me help you to help yourself develop the proper motivation.

Let us assume that you are thirty pounds too heavy.

Get a thirty-pound sack of sand or beans or whatever you wish—just so it weighs thirty pounds—and carry it around all day. Never put it down unless you lie down to sleep. Note the inconvenience and discomfort that you experience as you lug the poundage around. Then consider that that is a sample of the load and inconvenience your body must carry every hour of the day. Then, after you have convinced yourself that pounds really do matter, put the sack away and set about to really lose those thirty pounds. If you falter halfway to the goal, pick up the sack for another day.

Finally, having gained the victory over the thirty pounds, pick up the sack and carry it around for a couple of hours. Then count your blessings that you no longer need to carry that terrible burden and that your heart and arteries no longer need to sustain the surplus load.

#### **BE HONEST**

Prevarication concerning the amount of food eaten is a common practice among the obese. I trust that every overweight reader of this book will not indulge in such games, for they only delay or prevent his eventual recovery. Be honest with yourself and with your physician.

A very obese female once told me that she had been on a 600-calorie diet for two years and instead of losing she had gained weight. She even claimed to exercise moderately. I knew she was not telling the truth, and when I related her tale to her family doctor, he, too, was quite amused by her claims. She was fooling no one but herself.

Then there was the patient who was so obese and whose abdomen was so rotund that he probably had not had a good look at his feet for years. With a straight and serious face he assured me that he hardly ate anything. Not believing his story, I checked with his cousin

and business partner, who happened into the office a few days later. He revealed that, although some days he ate very little, on other occasions he had consumed one and one-half fried chickens, all at one meal.

Another similarly shaped man comes to mind. During World War II he was the first engineer on a United States merchantman where I served as ship's doctor. He was unable to lace his shoes, possibly partly due to the swelling of his feet and partly due to the fact that he could not very well reach them. His abdominal girth was absolutely enormous. Once he fell off the pier in San Francisco harbor and a derrick was used to hoist him out of the water. Since I ate at the same dining table with this fabulously fat man I observed that with great gusto he stowed away enormous amounts of food, fattening food—probably three times as much as I did. People simply do not become fat without eating much food, and even though it does not take as much food to maintain the obese state as to attain it, it does take plenty of food to stay enormously fat, certainly more than 600 calories per day.

#### **MIND OVER MATTER**

Remember that honesty and will power on your part are essential in reducing. Someone has defined will power for overweight people thus: "The ability to eat only one, small, round, salted peanut." If you can hold a bag of peanuts in your hand while watching your favorite TV program, your success is assured—if you can limit yourself to that one peanut!

#### **WHO CAN CURE OBESITY?**

Only **YOU** can cure your obesity. A physician can help you, educate you, and advise you, but you, as the patient, must make the final decision as to whether or not you wish to lose weight effectively and permanently,

or whether you just wish to experience a quick temporary loss so that you can as soon as possible return to your old patterns of eating and inactivity. Don't stay fat on "slim excuses"! Your doctor cannot cure your obesity; he can only help you to help yourself.

No one wants to "wish" a heart attack upon anyone, but an obese person who has become frightened by having a mild heart attack is sometimes better off than a nonheart patient in that he is usually more cooperative and more successful in losing weight. One who has not suffered from a complication of obesity is not as likely to accept advice, preferring to believe that the potential hazards of obesity "could never happen to me." Such is human nature. If you are obese, keep this fact in mind, and act in wisdom before complications afflict your body.

#### AN APPEAL

You have once more read and considered *a program that works*. The decision as to applying it is strictly yours. *This* you surely know.

## CHAPTER 32

### **Diet Madness**

IN RECENT YEARS A MADDENING VARIETY OF diets has been advocated for obesity—high this and low that—most of them promising to take pounds off the painless way. No inconvenience at all! "You can have your cake, and eat it too!" Even whisky! Glorious Utopia for the overweight!

Some of these diet programs have come and gone about as fast as they came. They do not recognize the basic cause of obesity, namely, that the obese person's food intake in calories exceeds his energy needs and energy output.

### LIQUID FORMULA DIETS

Although some liquid formulas furnish a balanced diet, persons who reduce by these methods tend in almost every case to revert to obesity once they stop the liquid formula. They begin fat; they end fat. The person has learned how to survive on liquids but has learned nothing about how to eat a balanced regular diet that will prevent obesity. High-protein diets for reducing suffer from the same weakness. Nutritional principles are not learned from any such unnatural diets. The end result is usually continued obesity. *This you should know.*

### HIGH-PROTEIN DIETS

Adequate protein must always be maintained in any reducing diet, but high-protein diets have a severe liability in that the excess nitrogen of the protein molecule must be discarded, placing an added load on the liver and kidneys. And if the diet contains meat protein, at the same time considerable fat is being consumed—saturated fat, at that—the very substance the obese one is trying to get rid of. Further, high-protein diets tend to be deficient in vitamins and minerals.

Studies at the University of Wisconsin have also shown that high-protein diets tend to cause an abnormal loss of calcium from the human body.<sup>1</sup> A similar study essentially duplicated these findings and also discovered that in persons on a high-protein diet "there was a significant increase in their blood of an enzyme, which

suggests protein tissue was being broken down *in their bodies.*<sup>12</sup>

The plain facts are that *any* unbalanced diet tends to upset the entire body chemistry and cause imbalances in various other chemical systems than the one that is intended to be treated by the unbalanced diet. *This* you should know!

### POLYUNSATURATES

Drastically reducing the intake of saturated fats and substituting polyunsaturated fats tends to drop hypercholesterolemia satisfactorily. But a word of caution: Just because a little is good, a lot more is not necessarily better—or even safe. Use all visible fats in moderation.

Diets containing 20 percent corn oil have been shown to increase the incidence of cancer in experimental animals, whereas coconut oil (a largely saturated fat) in a 20 percent proportion or even corn oil in a lesser proportion did not accompany as high an incidence of malignancy. Human studies seem to corroborate the animal findings.<sup>3</sup> The exact mechanism of this association of polyunsaturates with cancer is not fully understood. As has been shown by the work of Hill, fat-rich diets are generally cancer-favoring.

Nevertheless, there is no reason why a judicious amount of fat such as corn oil should not be used to replace saturated fats in the diet. Many Americans' diets contain upward of 40 percent fat, most of it saturated. An ideal diet should probably contain somewhere between 12 and 18 percent total fat, most of this *not* being visible fat and most of it being from natural sources. With this proportion there would seem to be no danger of increasing cancer incidence. The two teaspoonfuls of corn oil that we suggest per day would not

amount to a very large percentage of the total caloric intake.

Let us heed the warning: Do not use 40 percent fat diets, not even of polyunsaturates. Eat less visible fats. A varied diet of the natural foods from the vegetable kingdom, together with a little vegetable oil, should provide all the fats one needs.

## DRUGS

I cannot recommend *the free use* of reducing pills. One type that was common in recent years contained thyroid extract and digitalis. The thyroid extract is intended to speed up metabolism, to burn up more fat. However, it also causes the heart to beat very rapidly if used in large doses. The digitalis is then depended upon to slow down the heart rate. In toxic doses it reduces appetite, but why allow yourself to be poisoned in order to curb the appetite? Such therapy is very artificial and cannot be considered to be wholly safe in every case. A judicious amount of thyroid extract, may, however, occasionally be safe in some individuals, but the huge doses can be very detrimental.

An editorial in the *Journal of the American Medical Association* discussed the use of such drugs as thyroid, digitalis, and diuretics in obesity therapy.<sup>4</sup> It labeled the use of digitalis and thyroid combinations as "reprehensible" and warned that giving thyroid extract to a person who has a normal thyroid gland can disturb the functions of the pituitary gland and even cause cessation of the function of the thyroid gland itself.

## AMPHETAMINES

Other diet pills contain the appetite-depressing amphetamines, which the youth are now using and calling "speed." They too can be dangerous and like some

other reducing methods fail to teach the obese person correct dietary habits. In April 1973 the Food and Drug Administration recalled large stocks of injectable amphetamines. The agency is said to believe that the drugs are ineffective and "do little good in obesity control."<sup>5</sup>

### DIURETICS

Diuretics cause loss of body water but not body fat. Thus they fool the obese into thinking that they are losing weight when they are only dehydrating themselves—wringing water out of their tissues—while the "water pills" are being used. Besides, those pills can upset the body's mineral balance. The *JAMA* editorial summarizes the facts thus: "There is, then, no rational basis behind the use of any of these drugs in treating obesity."<sup>6</sup> *This* you should know.

Bear in mind that water balance has much to do with sudden weight losses. Some of the fluctuations in weight while dieting may be due to changes in water loss or retention. Do not become overly elated or overly discouraged by such changes. Just plod ahead on the program, keeping in mind the principles involved and the grand end in view.

### MECHANICAL REDUCING AIDS

Other than such things as axes, hoes, shovels, and bicycles, mechanical reducing aids serve mostly to line the purses of the salesmen. In recent years such items as belts and shorts and various wrappings have been advertised with fantastic claims that they will reduce your waistline or other bulges on your body. Tests have shown that generally these produce no lasting results. Assuredly they will remove one bulge—the bulge in your purse.

As for massage reducing your bulges, my old college

professor had an answer: "Massage is a lazy man's way of taking exercise." Massage of your back does feel good, yes, wonderful, and may reduce nervous tensions. But it won't reduce the tension of your clothes that invest the swollen adipose tissues.

#### **INTESTINAL BY-PASS SURGERY**

There is an operation whereby weight loss can be achieved. The normal intestinal route for food is short-circuited, so the patient can eat liberally and some of the food rushes through without being properly digested and absorbed. I mention this operation only to point out that although it will reduce obesity it has grave dangers such as liver, kidney, and bone diseases. Yes, even diseases of the nervous system. *This too* you should know. The risks are great.

### **CHAPTER 33**

## ***The Difficult Ones***

IN SPITE OF USING GOOD REDUCING PROGRAMS, a small percentage of individuals do have difficulty reducing or maintaining a normal weight once they have reduced. Try as they might, they seem to gain. Why?

Studies conducted at the Mayo Clinic<sup>1</sup> revealed that generally obese persons have the same basic energy requirements for their body metabolism as do thin persons and the basal metabolic rate is as often normal in one group as the other. A given task uses up as many calories in a fat person as in a thin one. Thus, neither has the

advantage in better efficiency in caloric use. Then why do the fat ones stay fat and the thin ones thin?

One obvious answer insofar as many overweight people are concerned is that they do not exercise as much as the thin ones do. Motion picture studies have proven this. Pictures taken of girls playing volley ball have revealed that the skinny ones exercised much more than the fat ones. Pedometric measurements of obese women indicate that they walked only half as much as normal weight women. Obese people tend to prefer sedentary occupations according to statistical studies. On the assumption that persistently obese persons are being honest in reporting their food intake, we can only conclude that they simply have to exercise more.

Remember that even though diet is very important, exercise is the key to breaking the obesity barrier. An obese person, especially one who finds it difficult to reduce, should try to do without labor-saving devices as much as possible. Don't use the garbage disposal in the sink, carry the garbage out to the trash receptacle. Use the stairs instead of the elevator or escalator. Don't ride if you can just as well walk. Exercise *every day*, not just twice a week. If you go swimming, don't just sit around and dangle your feet in the water or play in the sand; swim. Get out and move those muscles, at every opportunity. Grow a garden. Do your own weeding and digging. Carry in the produce yourself. Walk your dog several miles a day. If you don't have a dog, walk yourself.

#### NERVOUS ENERGY

Another imponderable that does not lend itself to easy measurement is nervous energy. Nervous or mental energy uses up calories. Obese people tend to be more easygoing and to use less nervous energy. Their excess calories are deposited as storage fat.

**LOWER METABOLISM WITH AGE**

Most individuals tend to develop a lower basal metabolic rate as they become older. Thus, fewer calories are required to keep the basic body chemical processes operating. It follows therefore that as one becomes older one should either reduce the caloric intake or else increase the caloric output by more exercise—or both. One may be given small judicious doses of thyroid extract to make up the metabolic deficit.

Those who have greater than average difficulty reducing should leave out the evening meal altogether. Most persons are asleep and at a low metabolic requirement when this meal is being absorbed, about midnight or thereafter. Consequently the food is deposited as fat. The obvious conclusion and solution is that fat persons who have a real problem losing weight should not only leave out this meal but take no snacks of any kind, not even fruit juice, between meals. Absolutely **NOTHING** but water.

Admittedly, after a person has been obese for quite a while it appears that the body does develop some sort of new equilibrium level that the body metabolism tries to maintain. But, by persistent and judicious methods, this equilibrium can be broken and the normal one reinstated. A good reducing program, adjusted to the person's individual needs, can usually break this seemingly difficult equilibrium. But the patient must be truly willing to reduce so that he will modify his living and diet habits.

**PHYSICAL HANDICAPS**

A few obese persons do have a physical handicap and cannot satisfactorily engage in vigorous exercise. This group will have difficulty maintaining a normal weight on almost any reducing program that furnishes

adequate nutrients. They definitely need professional help and guidance. Some sort of exercise that will permit excess calories to be burned can surely be developed for most of these individuals. Walking, except for the most severely crippled, is available to almost anyone. The idea is not only to burn up calories but to tone up the entire system and promote general health.

## CHAPTER 34

### **A “Cure” for Your Stroke**

“BUT,” YOU SAY, “THERE MUST BE A MISTAKE here. This chapter cannot be for *me!* I have not had a stroke. I *only* have high blood pressure!”

“Only?”

Reflect for a moment and you will realize that a brain stroke is the potential endpoint for many hypertensives—that is, if heart attacks or damaged kidneys have not killed them first. Each year the staggering number of 250,000 Americans die, or are disabled, as a result of hypertension complications. Some 200,000 die of strokes. In Europe one million strokes occur each year, 30 percent of them being fatal. Europe is also home to one million stroke victims who are permanently disabled.<sup>1</sup>

Allow me to ask a question: If the cause of your elevated blood pressure can be reasonably ascertained and a program for lowering it instituted so that you enjoy good health and *avoid* a stroke, isn’t such a program better than a treatment administered *after* a stroke has paralyzed you? Isn’t a preventive “cure” more val-

able than an active "cure," which in the case of an actual stroke is too often rarely any cure at all?

Yes, you should consider any active treatment of hypertension as treatment to prevent a stroke, to say nothing of the possibility of an early heart attack.

### A PROGRAM YOU SHOULD KNOW

This book has outlined a comprehensive program for the management of your hypertension, subject to modification for your individual needs. It has also set forth the startling fact that elevated blood pressure is often associated with allergy to foods and other substances.

This chapter will set forth a few additional principles of management. The specifics will need to be applied to the patient under professional guidance.

You have a right to know that the recommendations here should prove helpful to most hypertensive patients. But you are the patient, and it is up to you to accept or reject advice. If you choose to accept sound counsel, you may receive great benefit. If you choose to reject it, it will be *your* own body that will suffer.

If some of our dietary suggestions seemed too stringent to you, you may be tempted to say, "If I have to live like that I would rather die." But the problem is, you might not have that choice. For example, people who are careless with their hypertension may indeed suffer a stroke and die, but on the other hand many stroke patients do not die of their first or second stroke and continue to live out a very miserable existence for years—a living death. So be wise, choose to live, and to live in the best possible manner.

### REST

Adequate rest and relaxation are beneficial in the management of hypertension. However, excessive sleep contributes to a greater incidence of strokes. Older

adults who sleep nine to ten hours per night have more strokes and heart attacks than those who sleep seven hours per night. Men who sleep *over* ten hours per night were found in one study to have a stroke incidence 286 percent higher than normal sleepers.<sup>2</sup>

### SEX

Sexual intercourse temporarily raises the blood pressure slightly and may briefly accelerate the pulse rate. The increases, while variable, are usually mild and very temporary. Except for acute medical situations there is no known evidence that would indicate that a judicious amount of marital sex activity is in any way harmful to hypertensives. On the contrary, it may be highly beneficial and relaxing, yes, healthful.

A New York study reported that even heart attack patients could safely engage in marital sex after the healing of the immediate heart attack.<sup>3</sup> Studies showed that the energy expended in one such episode was no more than that expended in a brisk walk down the street. So, if you can safely take a walk in the park, you should be able to safely enjoy sex. By contrast, *extramarital sex* was shown in the New York study to be a greater systemic strain. The article pointed out that most reported cases of death during sexual contact were instances of illicit sex outside of marriage, with its strain of guilt and remorse, and so on. A similar study conducted in Japan noted that 80 percent of fatalities during sex were during extramarital intercourse.<sup>4</sup>

### ELIMINATION

Proper elimination of wastes is always beneficial. Persons tending to constipation may be benefitted by taking a teaspoonful of brewer's yeast daily (if not allergic to it). If there is much flatulence or constipation, bulk-producing substances (like Metamucil powder, a

psyllium seed product) in amounts of one teaspoonful in water taken at least a half-hour before breakfast should help to settle the bowels and add needed bulk. Americans eat too little bulk in their diet.

Drinking one or two glasses of quite warm water thirty to sixty minutes before each meal does much toward replenishing the fluids needed by the digestive glands and materially aids in eliminating not only kidney wastes but also intestinal wastes. This practice lessens the tendency to constipation and intestinal putrefaction, and pressor substances will not tend to stagnate in the large intestine.

The warning must be given that frequent enemas are not advisable and may in fact deplete the potassium in the body. Enemas should be used to remove putrefactive products (pressor substances and tyramine) from the bowel only occasionally—I would suggest that once weekly be the maximum frequency, and better still, less often or not at all. Once a month might be often enough, and do not take an enema even then unless there is clear evidence for its need. If a proper diet is adhered to and adequate exercise is taken one should rarely need an enema. The popular "colonics" are usually too drastic and are not to be recommended.

May I also warn that no enemas should be taken if there are any symptoms or indications of appendicitis or other serious internal disease that should receive professional diagnosis and guidance.

#### STASIS AND PUTREFACTION

Besides an occasional enema (if indicated), if prior experience indicates that you have intestinal putrefaction a change in the bacterial flora of the bowel may be helpful in reducing the putrefactive activity. To this end the ingestion of *Lactobacillus acidophilus*-type cultures may be beneficial. This can be taken in the form of cap-

sules or tablets or as yogurtlike products. Not all cases of putrefaction are benefitted from these cultures. Activated charcoal will in some cases lessen intestinal putrefaction by *adsorbing* toxins and gases.

In connection with the development of colonic cancer, the world authority on the subject, Dr. Denis P. Burkitt, advises that if we eat a suitable amount of natural roughage the transit time of the food through the colon is accelerated and there is less chance of irritation that would produce cancer.<sup>5</sup> Human and animal studies indicate that intestinal bacteria manufacture carcinogens from certain bile salts. Thus, stagnation and putrefaction give the bacteria more time to accomplish this deadly work.

Americans commonly eat too many refined grain products (white-flour bread, for example, whereas whole grains would be more healthful. It seems to be a fact that the refined grains that have been so commonly used to treat colonic disease (the so-called "smooth" diets) are the very ones that help to produce colonic disease in the first place.

#### TRANQUILITY

A clear conscience, void of offense toward God and man, goes a long way toward reducing nervous tensions. Avoidance of unnecessary conflicts with testy in-laws and other disagreeable persons is a must for you as a hypertensive. You are hypertensive in the first place partly because of too much tension. So the fewer the frustrations, the better for the blood pressure.

A few years ago investigators from Johns Hopkins University set out to determine if there was any correlation between heart disease and hardness of drinking water. They found that there was no significant relationship, but as a by-product of their research they discovered that persons who led a pious religious life

had a much lesser incidence of several serious diseases, including heart disease and cancer, and that longevity was enhanced. The incidence of hypertension was not determined, but the fact that it is so closely related to heart disease makes it fairly safe to assume that it too would have had a lower incidence among pious folk.<sup>6</sup>

Studies have shown that in periods of very quiet meditation bodily oxygen consumption falls by 17 percent.<sup>7</sup> So, if you are short of breath because your heart is not keeping up with its work load, perhaps meditation will rest your heart and also benefit your tense arteries. It is worth a try. But don't let meditation prevent you from obtaining adequate professional care for your ailing heart.

That a tranquil living program lessens the incidence of high blood pressure and cardiovascular disease is further attested to by studies and conclusions emanating from the International Biological Program, which has been summarized as follows: "IBP studies show that people who continue to live in remote areas of the world and to follow primitive customs do not have heart disease, high blood pressure, high levels of cholesterol in their blood, dental disease, measles and other ills of modern life. If there is anything that sets these other-world people apart, it is their physical fitness. Some of the oldest persons in the world are found in their midst."<sup>8</sup> To the extent that it is possible, live simply and quietly. By tranquil living, Americans can similarly reduce their high blood pressure incidence.

#### **PROFESSIONAL GUIDANCE**

If you have hypertension, you should be under the care of a physician knowledgeable about blood pressure management. Do not try to manage all aspects of your care yourself. In these pages we have set forth many things you can do to assist your doctor, but in the

highly technical aspects you need to depend upon him as a wise counselor and guide.

However, insist that he have the minimum, prudent laboratory studies made for you, such as blood sugar tolerance tests (preferably four to six hours), serum cholesterol, blood uric acid, nitrogen, and creatinine. A complete blood count—including an eosinophile count, which in allergic conditions is sometimes elevated—and a urinalysis are also in order, as is an electrocardiogram of your heart function. Chest x-rays are indicated and in some instances kidney x-ray studies.

Having secured these tests and having performed his general examination, your physician will have a "baseline" picture of your condition so that any future deviations can be evaluated. In the event that abnormalities are found in any of the above tests, he can help you correct them. So whether the tests give positive or negative findings, they are of great value and the expense incurred is well worthwhile in potential health benefits.

Above all, assert your right to know the results of these tests, in detail. Do not accept vague generalities in lieu of an accurate report. The physician has an obligation to honor your right to know.

Understandably, your physician is the one who should manage your medications and drugs—if they are needed. But do ask him to use the milder, less dangerous drugs insofar as possible. Except in emergencies, most doctors follow the practice of starting with the milder drugs in treating hypertension.

If your physician has impeccable personal health habits he will probably agree with most of the recommendations given here. But if he is himself obese, likes his martinis, is a smoker, and lives from one cup of coffee to another, then do not be surprised if he should be rather vague about recommending improvements in your

personal living habits, even if such improvements have been proven to be valid by medical science. It is simply human nature to be hesitant about recommending a higher standard than one has set for oneself. Doctors, too, are human. "Water cannot by nature rise higher than its source."

### **"DON'T CHICKEN OUT"**

As you and your doctor pursue your treatment program you may at times feel discouraged because of slow progress, not feeling well, or the effects of some drugs. Persevere! Persistence will pay off in the end and hopefully you will soon be able to enjoy a fuller life and become more and more used to some of the restrictions imposed upon your former way of life. In the words of one cardiologist, who himself suffered from hypertension, "Don't chicken out too early."

If you persevere you may improve to the extent that the severe restrictions can be lessened and your life will become more "normal" again.

### **YOUR RIGHT TO KNOW**

As you began reading this book you had a right to know what the facts were relative to vascular hypertension and to that common affliction so often a part of the problem of vascular hypertension, namely obesity.

I have done my best to honor your right to know. The facts have been set before you. It is up to you to accept facts or reject them. The consequences of your acceptance or rejection will belong to *you*.

### **TRY IT**

Sometimes the symptoms of low blood pressure are similar to those of elevated pressure. For example, both may cause headache and dizziness. If you are a hypertensive person, you should therefore have regular and

frequent monitoring of your blood pressure, which can best be done by doing it yourself, at home. You may be able to avoid the development of insidious strokes and heart complications. If your hypertension is not too severe or too chronic before you begin treatment, by following the programs outlined in this volume you might possibly be able to avoid the regular use of drugs. And if your hypertension is of the type for which no direct cause can be found, perhaps the counsel found in these pages will help you to determine if possibly the cause is that long-neglected one, food allergy.

Why not "cure" your stroke before it strikes *you*?

Try it!

## CHAPTER 35

### ***Time Is of the Essence***

A WELL-KNOWN SAYING IN THE LEGAL PROFESSION is "Time is of the essence," which means that prompt action is required. Then there is an old Swedish proverb that can be translated as "Small ulcers and poverty-stricken parents deserve prompt and diligent care."

Applying these sayings to the problem of diagnosis and treatment of high blood pressure, we come to the conclusion that any case of high blood pressure, whether mild or severe, deserves prompt and early diagnosis and diligent treatment. To do any less is to invite unnecessary tragedy. The latter is well illustrated by the following case recently related to us by the surviving widow:

**CASE 1**

G.B., a man in his late sixties, had for many years been told by physicians that he had vascular hypertension. However, very few of them prescribed any medication for him. He did take some pills for a short time and then stopped. When he developed severe dizziness he consulted his physician, who found his pressure to be greatly elevated and sent him home with the advice that he should resume taking his medication.

The man went home, and while his wife prepared dinner, he sat down to watch a TV program, evidently intending to take his blood pressure pills later. While waiting for dinner he suddenly sustained a massive brain hemorrhage and lived only five days.

The lessons in this case are clear. Besides having had neglectful care during part of his hypertensive years, he very obviously had a greatly elevated pressure when he finally consulted his physician. In hindsight, after the demise of the patient, the physician could surely see that the fatal stroke might have been prevented had a blood-pressure-lowering drug been administered immediately, while the patient was still in his office. Within the two hours between the office visit and the development of the massive stroke that drug could have lowered the pressure to a safe level. Patients such as this one should be examined by the physician on a daily basis and treated with great diligence. An elevated pressure should be monitored at home several times daily until it drops to safe and stable levels. In blood pressure therapy, *time is of the essence!*

**CASE 2**

J.J., a housewife, age sixty-four, was not obese. She complained of distress in her ears and lightheadedness for two weeks, and she had also noted that she had be-

come unusually forgetful and sleepy. Three months earlier she had suffered a subconjunctival hemorrhage over the white portion of her left eye.

Her blood pressure was found to be 190/89, certainly an elevated pressure. The blood cholesterol level was moderately elevated above normal.

Upon dietary evaluation it became evident that she was using saturated fats and salt too freely, and during dietary consultation she volunteered that after eating pork she experienced such massive beating of her heart that it caused her entire chest cage to shake. (Clearly, evidence of high blood pressure.) To a lesser extent wheat would do the same.

She was advised to drastically reduce her salt and saturated fat intake and for the present to exclude pork from her diet. Some mild antihypertensive capsules were dispensed, one capsule being administered right in the consultation room. Within one week, after having taken only five of the capsules, her blood pressure had dropped to a safe 140/70 and she felt much better.

## **LESSONS**

Without question this patient had hypertension when she sustained the eye hemorrhage three months earlier. Her pressure should have been monitored at that time.

Another lesson is that therapy must begin immediately upon diagnosis. This patient was on the verge of a stroke. She needed immediate care—not a delay of several hours.

A third lesson is that judicious questioning about diet and living habits and time in which to tell symptoms and experiences often uncover the cause of the hypertension, as in this second case, where the woman volunteered that pork caused her severe vascular distress, clearly an evidence of marked hypertension incited by an allergy. Indeed, diet and living habits have

much to do with the causation of high blood pressure. But diet investigation and therapy are not too popular in some medical circles—in fact, are neglected. If allergy is involved, the offenders will never be identified if the concept that food allergy can cause hypertension is not recognized for the fact that it is. Consequently, it is all the more important that the patient himself be knowledgeable about the relationship of food allergy and hypertension.

Diet is the cornerstone in diabetes management. Physicians and patients alike know that if diet therapy is neglected tragedy can be the result. So thousands of diabetics live useful and comfortable lives as a result of careful and painstaking diet management. The same can be true of hypertensives if physicians themselves become knowledgeable about the importance of diet in hypertension therapy and prevention of strokes, and take the time to explain the mechanism to their patients. Most patients would comprehend the issues and cooperate to their own benefit, just as they commonly do in the management of diabetes.

Other than emergency care, the very highest priority should be given to correction of dietary and living habits whenever management of a case of hypertension is undertaken. *This you should know.*

## CHAPTER 36

### ***Wake Up, America!***

PERHAPS SOME FACTS FROM A RECENT, VERY revealing article in *Medical World News* will wake up

complacent Americans.<sup>1</sup> Point after point made in this volume is sustained by this article as well as by other recent medical articles and reports to which I will refer.

### THE GREAT NEED

In this article a number of hypertension authorities deplore the very common lackadaisical attitude toward this dangerous disease on the part of many physicians. One eminent expert states that it is difficult to arouse the minds of physicians as to the seriousness of hypertension in their patients; another places the blame for many of the fatalities on the attitude of *disbelieving* physicians.

However, efforts are being made to wake up doctors to the realities of the hypertension crisis and to make them knowledgeable about its treatment. This article states: "Medical schools are being asked to review their curriculums and to make certain that future physicians are prepared to treat hypertension. Medical examining boards are being requested to do the same with their tests."

The magnitude of the problem of finding and treating the tens of millions of hypertensives in America is discussed, as are some solutions, including one in the District of Columbia. There, high school students are being trained to measure blood pressure, and nurses are being trained to treat high blood pressure.

### IN HOSPITALS

Hypertensives are being neglected, not only in the community at large and in medical offices but even in hospitals. This article reveals that a nurse was recently sent into a large Washington, D.C., hospital to go from ward to ward to take blood pressures. "Of the 1,300 recorded pressures, 400 were over 150/100 mm HMG; only 115 of these patients knew they were hypertensive,

and only *eight* were getting treatment." This is surely a scandalous evidence of gross neglect.

#### "HOW HIGH IS 'UP'?"

Physicians are still debating what level of blood pressure should be considered *high*. The writer of the article asks, "At what point does hypertension begin? This is almost like asking how high is 'up.' " He states that one reason why physicians have suggested such high levels as the "normal" point above which treatment should begin is that if it were set any lower it would "overload the health care system." Is this not a shocking revelation?

However, there seems to be general agreement that a diastolic pressure of 104 requires treatment, a diastolic pressure of 120 indicates need for immediate and urgent care, and one of 140 warrants the immediate hospitalization of the individual. Those with moderate degrees of elevation more or less get left out of the treatment program because of the urgency in caring for the more severe cases. Yet it is the early, more mild cases for whom the most permanent good can be done by proper treatment. These are the ones in particular I wish to reach and help.

In earlier chapters, we established that a diastolic pressure of 90 (not 104 as suggested in the article) is much too high and should receive treatment. I am not the only physician who realizes that *any* elevation of blood pressure above "normal"—no matter how small the elevation—must be treated *now*. Procrastination is a mortal sin in blood pressure management. More and more physicians are beginning to wake up to the fact that strokes must be "cured" long before they "strike."

#### HOW COULD IT HAPPEN?

This same article relates the story of a hypertensive

physician, Dr. Jones, who for twenty-five years consulted well-known specialists. In all that time, not even one bothered to try to treat his high blood pressure problem. Finally, one did prescribe drugs for him that successfully lowered his pressure. But when he tried for a few days to get along without the drugs, a stroke ensued, leaving him with irreversible brain damage. The author says of the patient: "Hard to believe? How could it happen to a physician? Dr. Jones' medical problem: Many physicians who recognize that drug therapy is beneficial in malignant or other severe or moderately severe hypertension do not believe in treating the much more common mild or moderate forms of the disease. Their belief has been anchored in tradition . . ." But, I ask, who wants to be treated by tradition instead of scientific facts?

#### DIET

Many physicians—even experts—totally ignore the importance of diet in the management of hypertension. In this article one doctor is quoted as stating that managing the disease by diet is "the worst way." He thinks drugs are the "best way." Another expert makes a diet program the last resort. He says nothing to the patient about the use of salt until he finds out if his drugs will work without restricting salt. He prefers to let the patient eat the salt and then depend on the drugs to excrete the salt through the kidneys. The greater the salt intake, the greater the need for drugs. Again, drugging is preferred to sensible adjustment of the diet.

However, some doctors are waking up to the importance of diet management in the treatment of hypertension. Dr. George E. Burch of Tulane University believes that diet should ordinarily be the first treatment before using drugs. He states, "I think diet is extremely important. . . . I put all my patients on a *largely fruit*

and vegetable diet and take them off heavy beef and pork completely as well as off highly salty food." He uses a low-cholesterol diet program. (Note his proscription of pork and recall the original findings relative to pork allergy as a cause of hypertension reported forty years ago.)

One eminent hypertension clinician, though he believes that diet may be important, has stated, "The worst way to get patients to comply is to restrict their diets." It is this dilatory defeatist attitude on the part of physicians and patients that has retarded, and will continue to retard, progress in relief of hypertension. Why wait to resort to diet until the kidneys are wrecked and the heart is crippled? Why not adopt an improved diet at the very first signs of hypertension, yes, even before hypertension occurs, and thus help to prevent it? America, wake up!

## DRUGS

As we have pointed out, drugs are not an unmixed blessing. Almost all of them can produce toxic (poisonous) effects. One surgeon tells his own personal tale of woe.<sup>2</sup> He states that the use of drugs for his own hypertension ruined his emotional life, ruined his sex life, and almost ruined him financially, for, while taking the drugs, he was not able to do his work properly. Diarrhea was also a severe problem for him, as it can be for many other users of hypertensive drugs.

One British physician writing in the thirteenth edition of *Cecil-Loeb Textbook of Medicine* in commenting upon drugs in hypertension therapy stated, "Make sure . . . that the treatment by drugs is not going to cause more trouble than the underlying condition. . . . The patient with diarrhea, impotence, tiredness and a normal arterial pressure is not a therapeutic triumph."

(At least one common antihypertensive drug causes impotence.<sup>3</sup>)

The patient and his physician must choose between diet and drugs, between diet and diarrhea, between sex and salt, between strength and weakness.

### AN INTELLIGENT PARTICIPATION

The physician above, while telling of his woeful experience, had this to say, "The doctor understands hypertension and its ultimate treachery. The [average] patient doesn't. Abused by treatment and devoid of human support, the patient drops out; the therapeutic program is abandoned, and hypertension resumes its unrelenting march toward an early grave."<sup>4</sup> Hopefully, the patient, by enlisting in an intelligent participation in his own treatment program as described in this volume, will not feel abandoned and will not "drop out." Instead of being simply a receptacle to ingest so many potentially toxic pills at stated intervals each day he will be able and willing to intelligently help manage his own health program and thus halt the progress of that "unrelenting march toward an early grave."

How tragic that so many physicians insist that "Those being treated for hypertension should take their medicine every day if they feel well."<sup>5</sup> Only if medications are truly needed every day is this sound advice. In these pages I have tried to call attention to the proven facts of science that can be applied to ameliorate and relieve hypertension without so often having to resort to large amounts of dangerous drugs. If patients will follow some of the principles outlined in this volume, many will be able to reduce their drug intakes and, in some cases, except for brief emergency intervals, abandon the use of drugs altogether. (There is one thing, however, that should *never* be abandoned by hyperten-

sives, or former hypertensives, and that is the practice of regular monitoring of the blood pressure at home.)

## **HORMONES**

Hopefully, knowledge will eventually become available to show us how to better manage this perplexing disease. Work done at Columbia University and the University of Pittsburgh has demonstrated some very intricate pathways by which the nerve cells of the brain regulate the pressor hormones in the pituitary gland.<sup>6</sup> But the research for this mechanism to become better understood and applied will take years, perhaps decades. Meanwhile, time marches on, and so does vascular hypertension, each year claiming more and more victims.

## **HOW SAD!**

The experts expect that the present crash programs to detect and treat hypertension "will take years" before they can statistically lessen mortality or morbidity caused by hypertension. Yet in this volume programs and simple means for obtaining immediate benefits at home have been presented. The article referred to in the beginning of this chapter concludes with the comments of one of the experts, who feels that real progress would be made if only 10 percent of hypertensives could be reached each year. But I say that since 10 to 26 percent of the population has hypertension and many new cases are being added each year, the net result would be far from a 10 percent net progress. How sad! When help is available now—to thousands and maybe millions of hypertensives if only the simple means of self-help were accepted and instituted.

## **VARIED CAUSES**

Some experts now recognize that there may be sev-

eral causes for hypertension. "Hundreds of investigators around the country . . . are seeking clues to the disease's etiology."

One wonders how long it will take them to stumble onto the age-old fact that many cases of hypertension are associated with food allergy. Millions of dollars are being spent in the frantic search for causes. But it does not take millions of dollars to accept the fact that food allergy is sometimes a cause—a relievable cause. It only requires a willingness to put aside preconceived ideas and prejudices and then, in appropriate cases, get on with the work of applying the knowledge.

### **A BRIGHT OUTLOOK**

The outlook in the battle against hypertension is far better than merely the forlorn hope of contacting 10 percent of the victims each year as one expert has suggested. I have advocated that every reader obtain his own blood pressure instruments and find out for himself whether or not he, or his family, might have evidence of hypertension. This could be done right away —this week.

Further, rather than joining in the lament of certain of the experts who assert that we do not know the cause of hypertension, I have shown that this is not wholly true and I have enumerated with adequate documentation many causative factors of hypertension, many of which are either totally relievable or preventable, or at least readily amenable to beneficial modification.

These causes have been adequately discussed in earlier chapters and I will only list them in this summary as follows: excessive use of salt, free use of sodium-rich foods, excess ingestion of saturated fats, malnutrition in the form of overnutrition or obesity, diabetes associated with the overuse of carbohydrates, use of

tobacco, use of coffee and tea, lack of exercise, nervous tension, use of sodium-rich or nitrate-rich water, use of contraceptive pills, ingestion of tyramine-rich foods such as certain types of cheese, and, finally, the ingestion of allergenic foods that have been definitely proven to be a precipitating cause of arterial hypertension, sometimes of a very severe type.

Knowing all of the foregoing facts, can we not conclude that the outlook for combatting the deadly enemy hypertension is very bright? It will be bright only if we act upon the knowledge. America, wake up!

#### LET'S FACE IT

The recent medical articles reviewed in this chapter are encouraging even if some of the conclusions of the "experts" are not always scientifically valid. At least there is action on the front lines of the battle against hypertension. Hopefully physicians will in due time be willing to be guided by the facts of science instead of guiding the therapy of their hypertensive patients by tradition or personal bias.

One need not be an inspired prophet to predict that in the end physicians will have to face up to the fact that diet and our common everyday living habits have much to do with the causation and treatment of arterial hypertension. *This* you should know!

Wake up, America! Drop that blood pressure! Now!

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# HOW'S YOUR PRESSURE?

High blood pressure—hypertension—is a potential killer that can bring on heart attack and stroke, cause kidney damage, even blindness. Yet millions of Americans are totally unaware of their danger.

Dr. Lloyd Rosenvold spotlights this little-understood illness, and describes in clear and simple language

- what hypertension is
- how to tell if you have it
- causes (including one that's been ignored for over 40 years!)\*
- diet suggestions
- helpful exercises
- treatment
- simple effective ways to *prevent* hypertension . . . and much, much more!

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